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Directory of the Nonfuel-Mineral Producers in Pennsylvania

1997

by
John H. Barnes
Pennsylvania Geological Survey

Commonwealth
of Pennsylvania
Tom Ridge, Governor

DCNR
Pennsylvania Department of
Conservation & Natural Resources

Cosponsored by

**Pennsylvania
Aggregates and Concrete
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by John H. Barnes
Pennsylvania Geological Survey

PENNSYLVANIA AGGREGATES AND CONCRETE ASSOCIATION

HARRISBURG

1997

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PREFACE

Before the first European settlers arrived, the wilderness of what is now Pennsylvania supplied mineral resources for the needs of native American societies. Today that tradition lives on, very much in the same spirit and intent.

Pennsylvania is a leader in the production of industrial minerals as well as in the conservation and stewardship of these mineral resources. Mining our mineral resources is a temporary land use, which when properly planned for and reclaimed, adds value to the environment and provides for the needs of society.

Pennsylvanians should be proud of their mineral and mining heritage. The industrial minerals industry - from the common aggregate used to make safe, skid resistant roads and bridges to the lesser known applications of mineral fillers and carriers used in plastics, fire suppression, and paper manufacture - has been pivotal in supplying the citizens of the Commonwealth with an economical enhanced quality of life.

Mineral resource information previously collected by the Department of Conservation and Natural Resources' Bureau of Topographic and Geologic Survey historically has been distributed exclusively as a Commonwealth report. Today the Department is looking for opportunities to create model partnerships for our Commonwealth publications.

In this publication, we have our first cooperative partnership between the Bureau of Topographic and Geologic Survey and the Pennsylvania Aggregates and Concrete Association. The partnership marks a new era of teamwork and wise use of limited taxpayer resources. We recognize the Association's leadership and foresight in providing the funds to make the printed version of this publication possible. We hope this will be the beginning of a long and fruitful relationship.

Sincerely,

John C. Oliver
Secretary
Department of Conservation and
Natural Resources

The Pennsylvania Aggregates and Concrete Association (PACA) appreciates the unique opportunity to be involved with the publication of this valuable and informative Directory. We would like to acknowledge the Pennsylvania Department of Conservation and Natural Resources (DCNR) for creating this "partnership" arrangement where public and private enterprise can mutually benefit. Also deserving thanks is the Pennsylvania Council of Professional Geologists (PCPG) for their early support and the numerous associations that provided their memberships notice of this publication. We intend this Directory to be of benefit not only to producers and consumers of industrial minerals, but also engineers, land-use planners and geologists.

PACA is a member-driven trade association, serving more than 200 member companies, large and small, across the state. PACA represents the aggregate and concrete industries on issues of mining, taxation, transportation, air, water and other critical regulatory and environmental matters. We would like to thank our members for their cooperation in the compilation and marketing of this Directory.

Sincerely,

James D. Sells, President
Pennsylvania Aggregates and Concrete Association

DEDICATION

The concept of the Bureau of Topographic and Geologic Survey's periodic preparation of a directory of the state's mineral industry came to fruition in 1965 with the publication of the first edition of Information Circular 54. The State Geologist who supported that concept and who saw the project through three subsequent editions, in 1971, 1977, and 1985, was Arthur A. Socolow. As Dr. Socolow enjoys his retirement in New England, this publication, the successor to IC 54, is dedicated to his continued support of our nation's mineral industry.

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DIRECTORY OF THE NONFUEL-MINERAL PRODUCERS IN PENNSYLVANIA

by

John H. Barnes

INTRODUCTION

From William Penn's instruction to the early settlers of Philadelphia to build houses of brick through the present day, the mining and use of nonfuel minerals has been an important factor in the economy and way of life in Pennsylvania. Pennsylvania's minerals, and the people who extracted them, were instrumental in winning the nation's freedom in the 1770's and in extending that freedom and restoring the Union in the 1860's. In peacetime, they have provided construction materials for homes and industry as well as products to improve agricultural production and raw materials for manufactured products, thus improving our nation's standard of living.

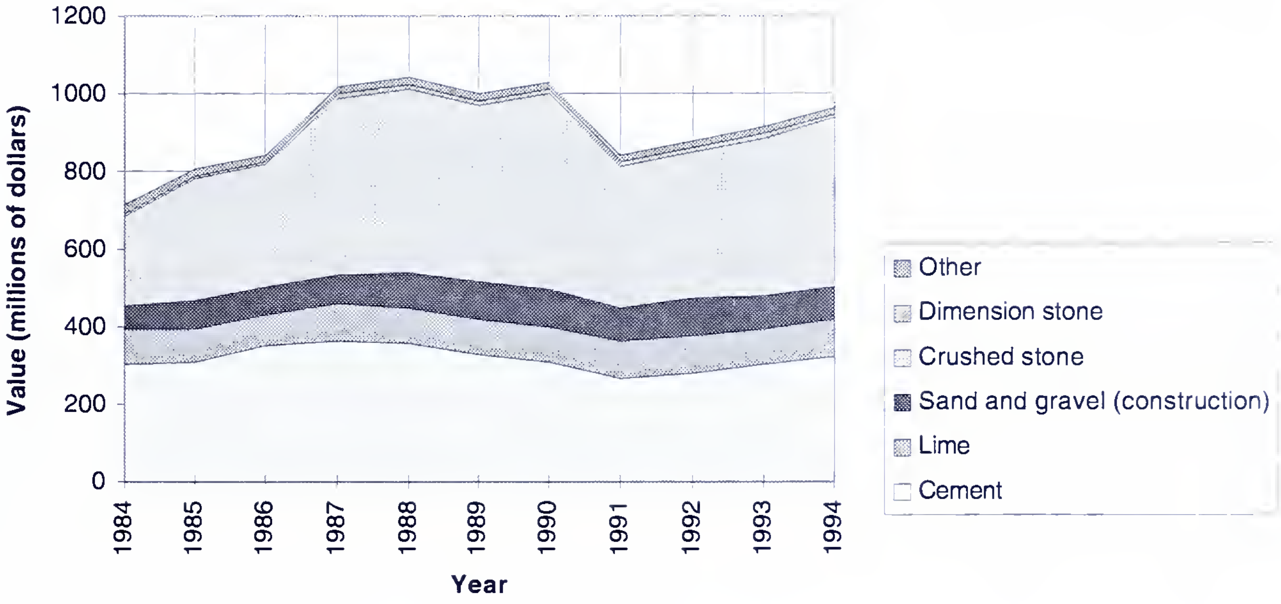

Figure 1. Dollar value of nonfuel mineral resources produced in Pennsylvania from 1984 through 1994. Data from Prosser and Smith (1987), Prosser and Berkheiser (1988), Prosser and Smith (1990), Prosser and Berkheiser [1990?], Prosser and Smith (1991), Prosser and Berkheiser (1992), Prosser and Smith (1993), Prosser and Berkheiser (1994), and U.S. Bureau of Mines [1995?].

In the late 1980's, production of nonfuel minerals in Pennsylvania topped $1 billion for the first time (Figure 1). Production value decreased sharply in 1991 to $844 million, then increased gradually to $963 million in 1994, the most recent year for which data are available. In 1994, according to preliminary data (U.S. Bureau of Mines, 1995?), crushed stone accounted for 44 percent of the production value in Pennsylvania, cement for 34 percent, lime for 10 percent, sand and gravel for 9 percent, and dimension stone and other applications for the remainder (Figure 2). As of that year about $80 worth of nonfuel minerals, or over 16,000 pounds of constuction aggregate, was produced for each of the approximately 11.9 million people living in Pennsylvania.

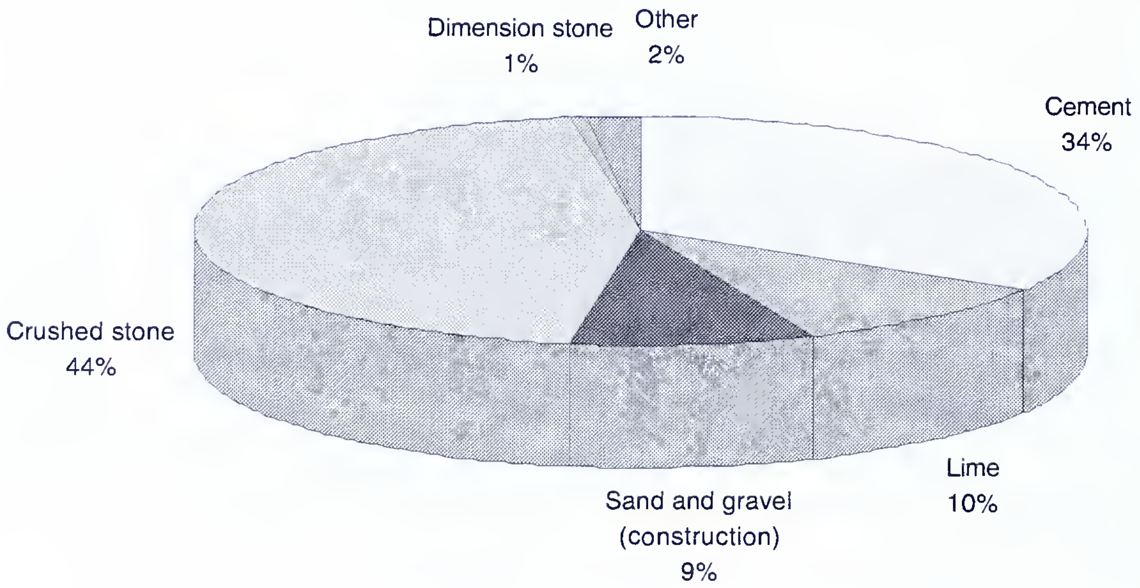

Figure 2. Breakdown of dollar value of the nonfuel mineral resources produced in Pennsylvania in 1994 (U.S. Bureau of Mines, 1995?).

Our state's mineral industry benefits all Pennsylvanians. The production of crushed stone and cement provides economical and safe materials to build and repair the state's highway system. This is a benefit to all of the state's other industries, including tourism, the state's second largest industry. The state's largest industry, agriculture, owes much of its success to the availability of economical, high-quality pulverized limestone and dolomite. Furthermore, the mineral industry, itself, provided jobs for over 31,000 people directly in 1990 (Pennsylvania State Data Center, online communication, 1996).

PURPOSE

The primary purpose of this report is to provide an up-to-date listing of Pennsylvania's nonfuel-mineral producers so that individuals searching for a specific product can readily identify the closest appropriate sources. Thus, the listing in Part 1 is by commodity, rock type, and county, in that order. Part 2 supplements this information by showing the locations of the individual operations.

The indication of producing formations in Part 1 further assists general characterization of the physical and chemical properties of the mineral products and indicates the potential for additional resources. These potential resources, as well as those currently in production, are valuable assets to the Commonwealth and should be considered in land-use planning. Selected references have been included as an aid to obtaining additional information.

SCOPE

This directory is restricted to producers of nonfuel minerals, that is, mineral commodities other than coal, oil, and natural gas. The information contained in this report was obtained primarily from questionnaires returned to us voluntarily by mineral producers who held permits issued by the Pennsylvania Bureau of Mining and Reclamation as of January 1995.

This directory contains listings of 695 active operations owned by 521 mineral producers. Where appropriate, operations are cross-referenced according to different commodities produced or different rock types mined. In two cases, mining operations straddle county lines and are listed twice, once for each county.

Nearly half of the operations produce construction aggregate as a principal commodity. About one-fifth of all the operations produce material for borrow and fill. The rest are divided among many other commodities, including dimension stone, agricultural materials, railroad ballast, and cement raw materials (Figure 3, Table 1). There are presently no active metal mines in Pennsylvania. Mineral Resource Report 50, Part 3, *Metal Mines and Occurrences in Pennsylvania* (Rose, 1970), provides a summary of past activity and significant prospects.

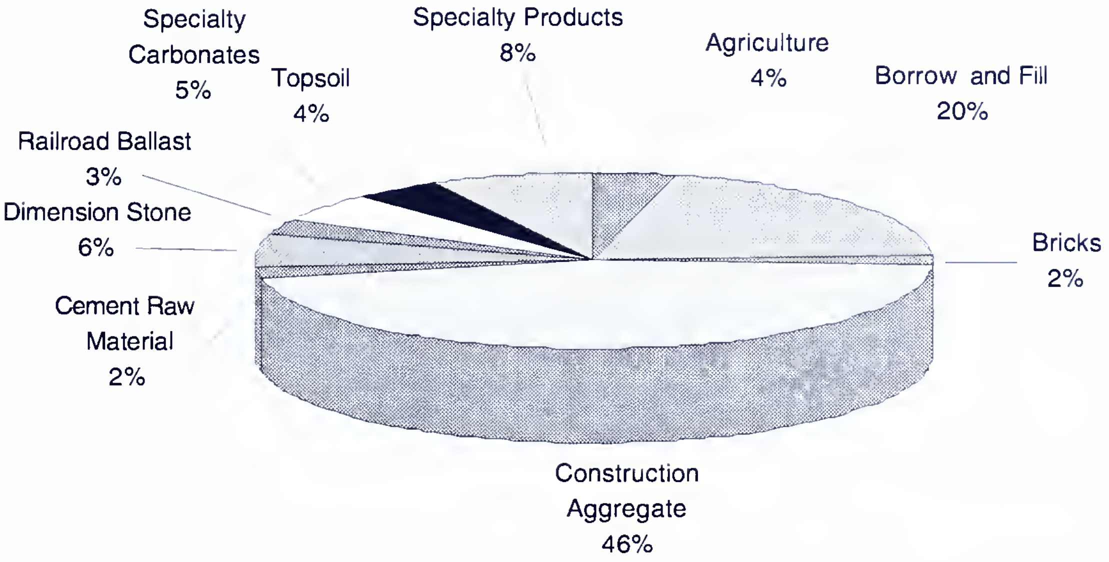

Figure 3. Percentage of the total number of listings in this directory that fall within various categories of nonfuel mineral resources. All listings are based on information voluntarily reported by mineral producers. Operations not reported are, therefore, not reflected in this graph.

Geographically, the nonfuel-mineral operations are distributed throughout the state. The greatest concentrations are in the east and the northwest (Figure 4), probably

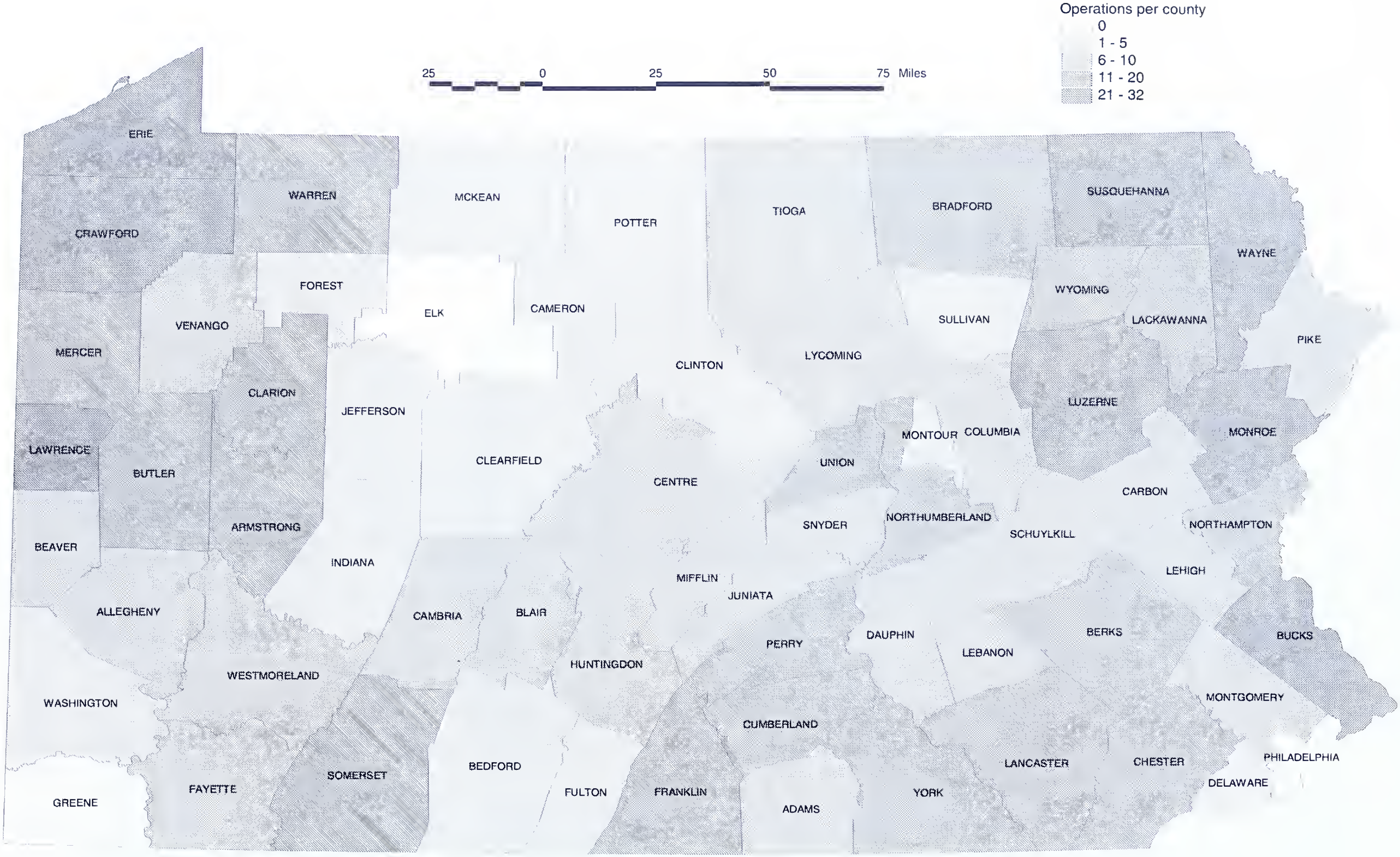

Figure 4. Number of operations listed in this directory from each county of Pennsylvania. All listings are based on information voluntarily reported by mineral producers. Operations not reported are, therefore, not reflected on this map.

reflecting the extraction of construction aggregate required in the population centers of eastern and western Pennsylvania, the occurrence of the popular dimension stone known as "bluestone" in northeastern Pennsylvania, and the occurrence of slate and cement raw materials in the Lehigh Valley. The area having the least activity is the sparsely populated north-central region.

ACKNOWLEDGMENTS

As with most projects of this type, a team effort was involved. Without the contributions of two groups of people, in particular, this project could not have succeeded. The Bureau of Mining and Reclamation of the Department of Environmental Protection, and in particular Robert Agnew, made available the names and addresses of the state's licensed nonfuel-mineral producers, to whom questionnaires seeking data for this directory were sent. Hundreds of those mineral producers took the time to complete the questionnaires and return them to us. We express our gratitude to all who participated in this endeavor for their invaluable contributions.

The author also wishes to especially thank his colleagues at the Bureau of Topographic and Geologic Survey. Robert C. Smith, II, provided unwavering support of the project and assistance in determining the locations and producing formations of many of the operations. Others who were helpful in providing site-specific information include Survey staff members Jon D. Inners, W. D. Sevon, James R. Shaulis, and Viktoras W. Skema, and now-retired staff member Albert D. Glover. Christine E. Miles, John G. Kuchinski, and student intern Jason Taylor of the Geologic and Geographic Information Services Division provided invaluable assistance in converting the manuscript and database into a format suitable for publication.

Thanks are also due to James D. Sells, President, Pennsylvania Aggregates and Concrete Association, for encouraging all members of his organization to respond to our questionnaire. Mr. Sells also served with J. A. Ames, D. S. Chilcote, Sr., F. J. Meckley, R. P. Nickelsen, Evan Shuster, S. J. Sims, and M. C. Thompson on the Geologic Resources Advisory Council, which identified this directory as filling a critical need for the state's mineral industry.

The review of this directory's glossary definitions by David Hopkins of Baker Refractories, especially for their consistency with the terms as used by the industry in Pennsylvania, is appreciated.

Thanks are also due Samuel W. Berkheiser, Jr., Chief, Geologic Resources Division, Bureau of Topographic and Geologic Survey, for his assistance in locating and suggesting references to assist the reader interested in the history and operation of specific quarries. The continued support of Donald M. Hoskins, State Geologist, is also appreciated.

Table 1. ***Explanation of Commodity Groupings***

Major commodity heading	Sources and uses
ABRASIVES	Silica sand and chert for rubbing, grinding, and polishing.
AGRICULTURAL MINERALS	Pulverized calcium-rich limestone and magnesium-rich dolomite as soil additives; limestone and dolomite as poultry grit.
BORROW AND GENERAL FILL	Shale, sandstone, clay, coal refuse, gneiss, gravel, metabasalt, limestone, sand, slag, or soil used for construction fill, low-traffic-volume roads, or driveways. Coal refuse (unspecified coal waste and bottom ash) includes man-made cinders (slag), coke ash and/or breeze (fine screenings from coke), gob (coal refuse left on the mine floor), and red dog (burnt reddish-colored coal-mine waste), and is used as antiskid material on highways as well as borrow and fill.
BRICKS	Clay and shale used for building, facing, flooring, and paving bricks.
CARBONATE FOR SO_2 ABSORPTION	Carbonate rock that is used in stack-gas scrubbing equipment at coal-burning facilities, such as power plants, to remove sulfur dioxide gas from the plants' emissions.
CEMENT RAW MATERIALS	High-calcium limestone, clay and shale, sandstone, and shaly limestone used for raw-cement (clinker) production.
COAL-MINE ROCK DUST	Generally a light-colored, low-silica, pulverized carbonate rock sprayed on the interior of underground coal mines to help reduce combustibility.
CONSTRUCTION AGGREGATE	Coarsely or finely crushed and/or screened rock aggregate generally made from unweathered argillite, diabase, dolomite, gneiss, gravel, limestone, metabasalt, sand, sandstone, serpentinite, shale, or slag. It is used for the construction of highways, foundations, and other structures.
DIMENSION STONE	Argillite, diabase, gneiss, limestone, sandstone, or slate cut, shaped, or selected for use in blocks, slabs, sheets, or other specified shapes and sizes. Slate includes specialty items such as billiard-table tops, blackboards, electrical boards, insulators, roofing, and structural products.
FILLERS	Argillite, dolomite, limestone, sandstone, shale, or slag used as inert extenders and diluents. Includes specialty items such as carbonate whiting.
FLUXSTONE	High-purity limestone and dolomite used in the glass and metals industries to purify products and reduce melting temperatures.
HIGH-CALCIUM LIMESTONE	Generally a limestone having a $CaCO_3$ content of 90 percent or greater. It is used as agricultural material, as a neutralizer for acid, as a source of $CaCO_3$ for cement manufacture, and for coal-mine rock dust, filler, fluxstone, lime, and whiting.
HIGH-MAGNESIUM DOLOMITE	Generally a dolomite having a $MgCO_3$ content of 40 percent of greater. It is used for agricultural material, as a neutralizer for acid, and for coal-mine rock dust, filler, fluxstone, lime, refractory products, and whiting.
LIME	Calcined (roasted) high-purity limestone and dolomite. Generally used for fluxing glass and metals. Also used in water and sewage treatment, for neutralizing acid, and in chemical manufacture, paper manufacture, building products, and ceramics.
QUARTZ CRYSTALS	Hard, multifaceted crystals of silicon dioxide, commonly colorless and transparent, that are aesthetically pleasing. (Industrial electronic applications are usually dependent upon high-purity synthetic quartz crystals.)

Table 1. ***(Continued)***

Major commodity heading	Sources and uses
RAILROAD BALLAST	Diabase, argillite, dolomite, gneiss, limestone, sandstone, serpentinite, or slag used as a graded track bed.
REFRACTORIES	Clay, dolomite, sandstone, or shale used as a protective coating or brick where high temperatures are encountered, such as in the manufacture of metals, glass, or coke.
ROOFING MATERIALS	Metabasalt, gravel, or slate used in any way for roofing. Metabasalt and gravel are used as granules for a top dressing to asphaltic and fiberglass roofing materials. Slate is trimmed to form roofing tiles.
SPECIALTY CLAY AND SHALE	Clays used for landfill liners and covers, fireclay, tile, and flue liners.
SPECIALTY SAND	Sand used for a variety of applications, including filter sand for septic systems (“sand-mound sands”), colored sands, masonry sand, manufacturing, and baseball infield mixes.
TALC	The mineral talc, used as a filler in plastics.
TOPSOIL	A natural mixture of mineral and organic materials, commonly obtained from floodplains, mixed with other materials, and sold for use as potting material and for soil improvement.

EXPLANATION

LISTINGS

Part 1 is the principal section of this directory. Operations are listed in order of general commodity category, then within that category by rock type, county, company name, and operation name. This method of organization was adopted on the assumption that most users will be looking for a particular commodity and rock type within a given geographic area defined by one or more counties.

Part 1 contains complete listings for each operation, including the name, address, and telephone number of the operating company and the name of the operation and site telephone number, if available. Also listed in Part 1 are the name of the formation and rock type being mined and a list of commodities being produced. Comments and references to assist the user in understanding the occurrence are included for many operations. In addition, the latitude and longitude of the operation and the name of the U.S. Geological Survey 7½-minute quadrangle map on which it is located are listed in Part 1.

The "Map Number" for each operation in the listings in Part 1 is keyed to the commodity maps that are found at the beginning of each commodity listing in Part 1, and to larger-scale county maps in Part 2. Part 2 also contains a list of the "Map Numbers" in numerical order, giving the name of the operating company and the page numbers of the listings for the operation in Part 1.

A general alphabetical index at the end of the book can be used to find information in Part 1 by company name, operation name, county, formation name, rock type, or specific commodity.

GEOLOGY

The producing formations and rock types were determined from the best available published geologic maps. For areas for which no detailed geologic mapping exists, the geology was determined from the Pennsylvania Geological Survey's Map 61, *Preliminary Geologic Quadrangle Maps of Pennsylvania* (Berg and Dodge, 1981). If a source other than Map 61 was used, it is noted in the "Comments" section of Part 1, as are other published references to the operation. Field verification was not undertaken.

COMMODITIES

The operations listed in this directory were assigned to 22 general commodity headings (Table 1). More specific commodity listings can be found in the general index. Figures 5 through 24 in Part 1 show the locations of operations producing materials that fall within each of the general commodity groups.

Every attempt has been made to report factual and accurate information. Most data contained in this report are based on the information voluntarily supplied for this purpose by the individual mineral producers. The only exception is the skid resistance rating of construction aggregate approved for highway construction and antiskid material, which was obtained from the Pennsylvania Department of Transportation's Publication 34, *Bulletin 14: Aggregate Producers*, as updated in March 1996 (Table 2).

Table 2. ***Pennsylvania Department of Transportation Skid-resistance Classification System***

Maximum Average Daily Traffic Count (ADT)	Skid Resistance Level (SRL) Required	Comments
>20,000	E (Excellent)	Only SRL E aggregate can be used.
20,000	H (High)	SRL E or H acceptable. Blends of SRL E and M or E and G are also acceptable.
5,000	G (Good)	SRL E, H, or G acceptable. Blends of SRL H and M or E and L are also acceptable.
3,000	M (Medium)	SRL E, H, G, or M acceptable. Blends of SRL H and L, G and L, or E and L are also acceptable
1,000	L (Low)	Any rated material is acceptable.

DISCLAIMER

The publication of product-application information in this directory does not constitute endorsement by the Bureau of Topographic and Geologic Survey of any claims volunteered to the Bureau for this publication. Consumers should contact appropriate licensing, regulatory, or trade organizations for such information. Our publication of information from the Pennsylvania Department of Transportation (PennDOT) regarding skid-resistance properties, in particular, should not be regarded as the final word. PennDOT's Publication 34 (*Bulletin 14*) is updated frequently. The latest version should be consulted for up-to-date information on approved construction aggregate. It is available from the Pennsylvania Department of Transportation, Publication Sales, P.O. Box 2028, Harrisburg, PA 17105, phone (717) 787-5968.

PART 1

Producer Listing by Commodity, Rock Type, and County

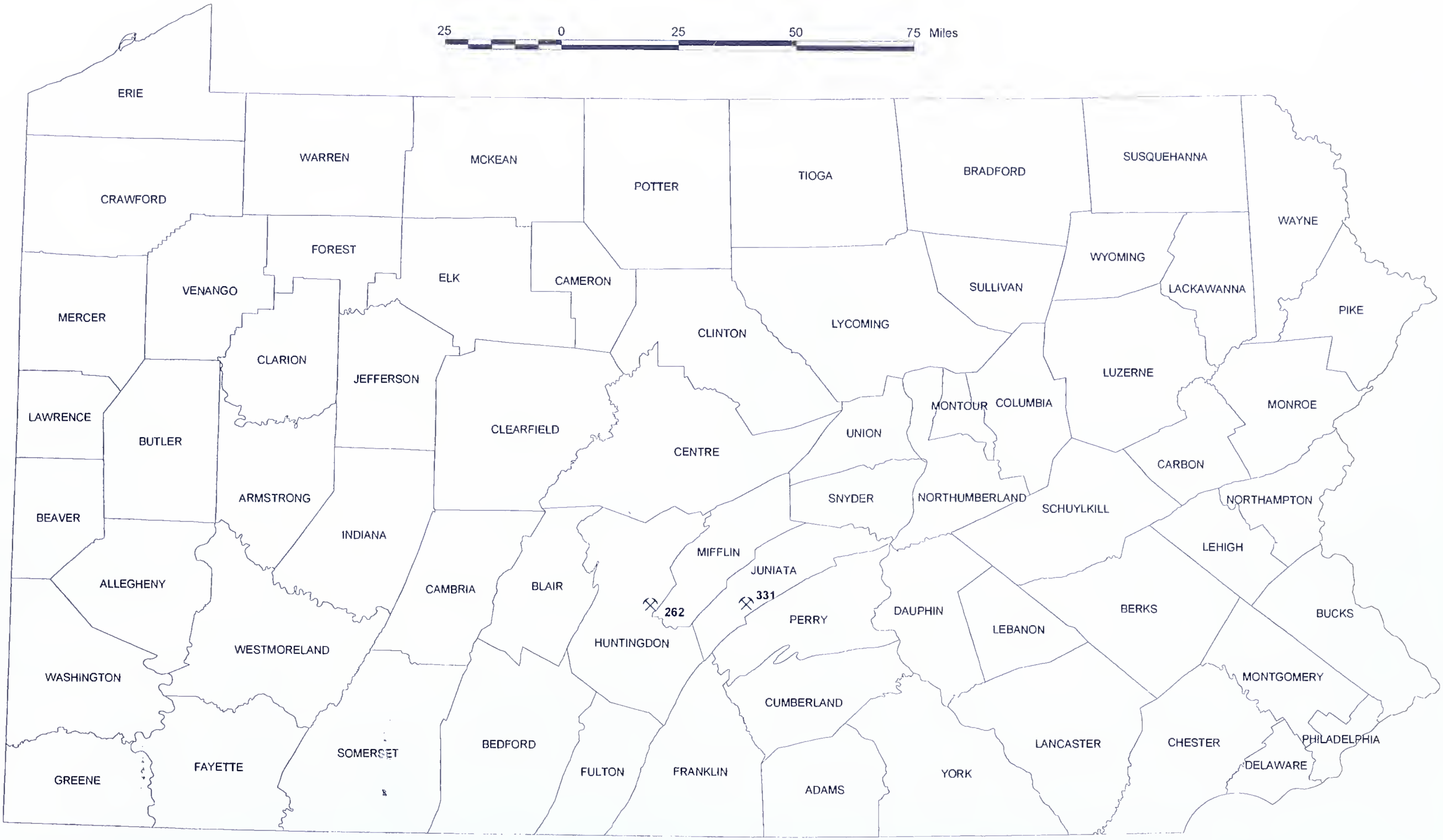

Figure 5. Locations of reporting producers of abrasive materials. Sandstone is mined for use as an abrasive at location 262. Location 331 was reported to be a "flint quarry." Map numbers correspond to those in the listings.

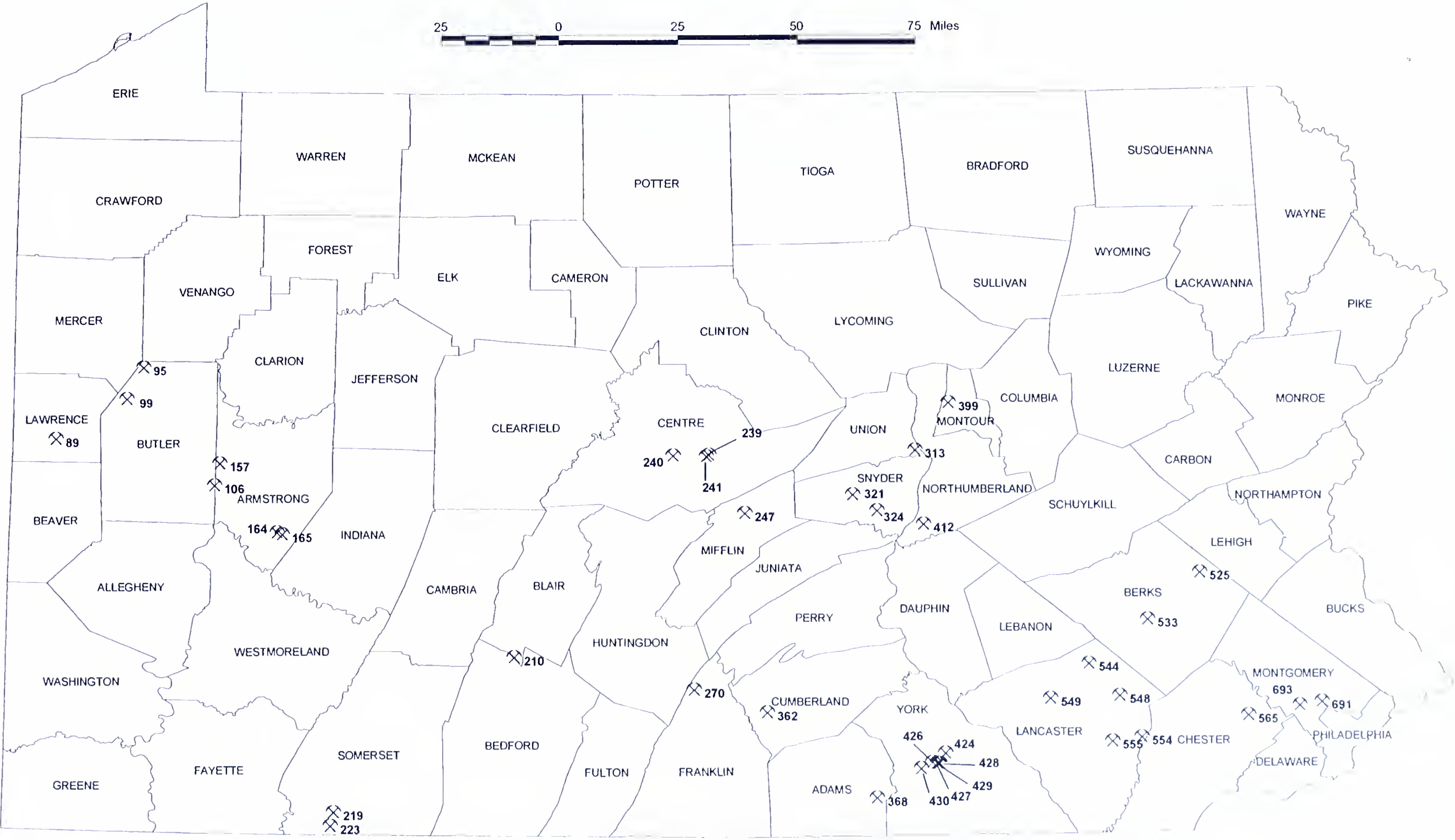

Figure 6. Locations of reporting producers of agricultural products. Limestone and dolomite are mined at all locations except 533, at which slag is mined. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				ABRASIVES		
				CHERT		
				Juniata County		
331	Gibbons, Robert L. R. D. 1, Box 500 Honey Grove, PA 17035 (717) 734-3286		quarry Gibbons McCoysville 7½' 40°26'06"N 77°31'58"W	Shriver chert	flint clay	Operator reports operation is a "flint quarry." Probably could produce flint for abrasives and knapping. Also producing clay for barnyard fill.
				SANDSTONE		
				Huntingdon County		
262	US Silica Company P. O. Box 187 Berkeley Springs, WV 25411 (304) 258-2500 (814) 542-2561	(304) 258-8293 (814) 542-4350	quarry US Silica Keystone Mount Union 7½' 40°25'50"N 77°55'15"W	Ridgeley sandstone	abrasive sand grinding and polishing sand engine sand glass sand pottery sand foundry and molding sand	Mining the "Oriskany" sandstone. See Berkheiser (1985a) for analysis and Fettke (1919) and Shufflebarger (1978) for descriptions. Formerly operated by Pennsylvania Glass Sand Corporation.
				AGRICULTURAL MINERALS		
				DOLOMITE		
				Berks County		
525	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 683-7400	(610) 867-1886	quarry Eastern Kutztown Topton 7½' 40°30'42"N 75°43'33"W	Allentown dolomite	pulverized dolomite for agriculture construction aggregate	
				Chester County		
565	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 647-4094	(215) 884-1465 (610) 251-0764	quarry Catanach Malvern 7½' 40°04'07"N 75°32'39"W	Ledger dolomite	pulverized dolomite for agriculture fluxstone construction aggregate high-magnesium dolomite	

AGRICULTURAL MINERALS (cont.)

DOLOMITE (cont.)

Lancaster County

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
555	Compass Quarries, Inc. 47 McIlvaine Road Paradise, PA 17562 (717) 442-4191	(717) 442-8729	quarry Compass Gap 7½' 39°59'47"N 76°05'21"W	Vintage dolomite	pulverized dolomite for agriculture construction aggregate fillers and extenders high-magnesium dolomite	See Miller (1934), "Bellemont Quarries," for description and chemical analysis.
554	Martin Limestone, Inc. P. O. Box 550 Blue Ball, PA 17506 (717) 354-1300 (717) 442-4148	(717) 354-1330	quarry Limeville Honey Brook 7½' 40°00'28"N 75°58'21"W	Ledger dolomite	pulverized dolomite for agriculture high-magnesium dolomite	

Montgomery County

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
691	Corson Lime Company 500 Stenton Ave. Plymouth Meeting, PA 19462 (610) 828-4300 (800) 267-7661	(610) 828-5696	quarries Corson Lime Germantown 7½' 40°06'18"N 75°14'49"W	Ledger dolomite	agricultural lime metallurgical lime fluxstone for metal industry high-magnesium dolomite construction aggregate	See "Lime." See O'Neill (1964) for analysis.
693	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 279-6840	(215) 884-1465 (610) 279-9286	quarry McCoy Norristown 7½' 40°05'44"N 75°20'12"W	Ledger dolomite	pulverized dolomite for agriculture fluxstone construction aggregate high-magnesium dolomite	See Miller (1934) for geologic description and chemical analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			DOLOMITE (cont.)			
			York County			
426	Baker Refractories P. O. Box 1189 York, PA 17405 (717) 848-1501 (717) 792-3683	(717) 848-2294 (717) 792-2309	quarry York dolomite West York 7½' 39°56'25"N 76°48'40"W	Ledger dolomite	pulverized dolomite for agriculture refractory products construction aggregate fillers dead-burned dolomite landfill clay	See Stose and Jonas (1939) for geology, Hopkins (1985a, b) for description, Ganis and Hopkins (1984b), Hopkins and Ganis (1990), and Taylor and Hopkins (1990) for geology and description. Less than 1 percent insoluble minerals (Ganis and Hopkins, 1995).
			LIMESTONE			
			Armstrong County			
157	M & M Lime Company R. D. 1, Box 257-M Worthington, PA 16262 (412) 297-3958		underground M & M Lime Worthington 7½' 40°51'16"N 79°40'26"W	Vanport limestone	pulverized limestone for agriculture construction aggregate	See O'Neill (1964, 1974) for general geologic descriptions.
164	Manor Minerals, Inc. 265 South Jefferson Street Kittanning, PA 16201 (412) 548-5195 (412) 354-3770		quarry Girty Whitesburg 7½' 40°38'38"N 79°26'06"W	Vanport limestone	pulverized limestone for agriculture construction aggregate	A 9-foot section contains 94 percent CaCO3 and 0.8 MgCO3 (R.C. Smith, II, unpub. data, 1995). Berkheiser and Smith (1995) provide additional information about the Vanport limestone.
165	South Bend Limestone Corporation 200 Route 22 Delmont, PA 15626 (412) 468-8232 (412) 478-1493	(412) 468-8230 (412) 478-4607	open pit Coleman Whitesburg 7½' 40°38'16"N 79°24'50"W	Vanport limestone Allegheny Group sandstone	agricultural limestone construction aggregate	Also producing sandstone aggregate and fireclay. See "Sandstone" and "Clay."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE (cont.)			
			Blair County			
210	Sproul Lime and Stone Company R. D. 1, Box 591 Claysburg, PA 16625 (814) 239-2772		quarry Sproul Roaring Spring 7½' 40°15'58"N 78°28'35"W	Keyser limestone	pulverized limestone for agriculture	See O'Neill (1964) for chemical analysis.
			Butler County			
95	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 735-2088		quarry Harrisville Barkeyville 7½' 41°08'51"N 79°59'36"W	Vanport limestone	pulverized limestone for agriculture construction aggregate high-calcium limestone fluxstone coal-mine rock dust	See O'Neill (1976) for analysis and thickness. See Pennsylvania Geological Survey (1986) for description of operation. See Snyder (1995) for history.
99	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 794-6911		quarry Slippery Rock Slippery Rock 7½' 41°02'48"N 80°03'27"W	Vanport limestone	pulverized limestone for agriculture construction aggregate high-calcium limestone fluxstone coal-mine rock dust	See Pennsylvania Geological Survey (1986) for description of operation.
106	Winfield Lime and Stone Co., Inc. 1295 Winfield Road Cabot, PA 16023 (412) 352-2640		underground Winfield Worthington 7½' 40°47'10"N 79°41'33"W	Vanport limestone	pulverized limestone for agriculture construction aggregate	
			Centre County			
239	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761 (814) 359-2313	(814) 355-4780	quarry Gentzel Mingoville 7½' 40°53'32"N 77°42'00"W	Valentine Member limestone	pulverized limestone for agriculture fluxstone high-calcium quicklime high-calcium limestone	Mining the Valentine Member of the Linden Hall Formation. Plans underground mining to the south. A 62-ft section contains 98 percent $CaCO_3$ and 0.8 $MgCO_3$ (R.C. Smith, II, unpub. data, 1996). Also see Berkheiser and Smith (1995).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE (cont.)			
			Centre County (cont.)			
241	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761	(814) 355-4780	underground Nos. 1 and 2 Mingoville 7½' 40°53'16"N 77°42'35"W	Valentine Member limestone	pulverized limestone for agriculture fluxstone high-calcium lime high-calcium limestone screenings	Mining the Valentine Member of the Linden Hall Formation. Location is for entrance to Numbers 1 and 2. Number 3 is nearby.
240	Con-Lime, Inc. P. O. Box 118 Bellefonte, PA 16823 (814) 355-4744	(814) 355-0843	underground Con-Lime Bellefonte 7½' 40°53'24"N 77°50'30"W	Valentine Member limestone	pulverized limestone for agriculture poultry grit high-calcium limestone high-calcium quicklime coal-mine rock dust fluxstone for glass	Reported to be very low in iron. Mining the Valentine Member of the Linden Hall Formation. A sample representing 84 feet contains 97 percent CaCO3, 1.1 MgCO3 (R.C. Smith, II, unpub. data, 1995). Also see Berkheiser (1985c) and Berkheiser and Smith (1995).
			Cumberland County			
362	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 532-2312		quarry Shippensburg Walnut Bottom 7½' 40°05'52"N 77°28'08"W	Stonehenge limestone Rockdale Run limestone and dolomite	pulverized limestone for agriculture construction aggregate	See O'Neill (1964) for analysis.
			Franklin County			
270	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (717) 349-2412	(814) 224-6800	quarry Dry Run Shade Gap 7½' 40°10'09"N 77°45'38"W	Chambersburg limestone	pulverized limestone for agriculture construction aggregate coarse aggregate for concrete	See "Construction Aggregate." See Nickelsen (1996) for structural features and geologic description. See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE (cont.)			
			Lancaster County			
544	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932	(610) 867-1886	quarry Schoeneck Ephrata 7½' 40°14'15"N 76°10'46"W	Annville limestone	pulverized limestone for agriculture high-calcium limestone fluxstone cement raw material acid neutralization construction aggregate	Selectively mining the Myerstown and Ontelaunee for construction materials and the Annville for high-calcium products. See Berkheiser (1983) for analysis.
			Lawrence County			
89	Medusa Aggregates Company P. O. Box 609 West Pittsburg, PA 16160 (412) 535-1200	(412) 535-1201	quarry West Pittsburg New Castle South 7½' 40°55'06"N 80°20'37"W	Vanport limestone	pulverized limestone for agriculture construction aggregate rip-rap	
			Mifflin County			
247	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 667-2015	(717) 524-7995	quarry Naginey Burnham 7½' 40°42'39"N 77°33'21"W	Coburn-Loysburg limestone Linden Hall limestone	agricultural lime sand for septic systems carbonate for SO2 absorption construction aggregate antiskid	A roadcut in the area exposes 206 feet of section containing 92 percent CaCO3 and 2.4 MgCO3. Of this, 109 feet contains 95 percent CaCO3 and 2.2 MgCO3 (R.C. Smith, II, unpub. data, 1995).
			Montour County			
399	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 437-2041	(610) 253-5734	quarry Milton Washingtonville 7½' 41°02'51"N 76°43'48"W	Keyser-Tonoloway limestone	pulverized limestone for agriculture construction aggregate	Keyser and Tonoloway Formations are undivided. See Way (1993) for geology. Faill (1979) reports 99 feet contain 92 percent CaCO3 and 2.1 MgCO3. This is likely in the base of the Keyser Formation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE (cont.)			
			Northumberland County			
412	Meckley's Limestone Products, Inc. R. D. 1, Box 950 Herndon, PA 17830 (717) 758-3001	(717) 758-2400	quarry Mandata Pillow 7½' 40°40'28"N 76°50'06"W	Keyser limestone Tonoloway limestone	pulverized limestone for agriculture carbonate for SO_2 absorption fillers construction aggregate	See Faill and others (1973) and Hoskins (1976) for description, geology, and analyses. Operator custom blends and grinds. See Meckley (1996) for a perspective on the company's history.
			Snyder County			
324	National Limestone Quarry, Inc. P. O. Box 397 Middleburg, PA 17842 (717) 837-1635		quarry Mt. Pleasant Mills Richfield 7½' 40°43'03"N 77°01'24"W	Keyser limestone Tonoloway limestone	pulverized limestone for agriculture poultry grit construction aggregate	
321	National Limestone Quarry, Inc. P. O. Box 397 Middleburg, PA 17842 (717) 837-1635		quarry Paxtonville Middleburg 7½' 40°46'01"N 77°07'10"W	Keyser limestone Tonoloway limestone	pulverized limestone for agriculture construction aggregate fillers for fertilizer	See O'Neill (1964) for analysis.
			Somerset County			
223	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562 (814) 662-2711	(814) 662-2712	quarry Eichorn Grantsville 7½' 39°44'40"N 79°12'21"W	Deer Valley limestone	pulverized limestone for agriculture	Mining the Deer Valley for agricultural limestone and the Loyalhanna for aggregate. A 7-foot section of Deer Valley contains 83 percent $CaCO_3$ and 1.0 $MgCO_3$ (R.C. Smith, II, unpub. data, 1995). Also see Brezinski (1993a) and Berkheiser and Smith (1995).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE (cont.)			
			Somerset County (cont.)			
219	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562 (814) 662-2711	(814) 662-2712	underground Peck Markleton 7½' 39°47'13"N 79°11'38"W	Wymps Gap limestone	pulverized limestone for agriculture	Worked for three months of the year in winter. See Flint (1965) for geology and measured section. Also see Brezinski (1993b) and Berkheiser and Smith (1995). A 7-foot section contains 94 percent CaCO3 and 0.8 MgCO3 (R.C. Smith, II, unpub. data, 1995).
			Union County			
313	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251	(717) 524-7995	quarry Winfield Northumberland 7½' 40°54'12"N 76°52'00"W	Keyser-Tonoloway limestone	agricultural lime sand for septic systems carbonate for SO2 absorption construction aggregate antiskid	Early source of lime in central Pennsylvania.
			York County			
427	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Consolidated West York 7½' 39°56'16"N 76°47'35"W	Kinzers limestone	agricultural lime poultry grit construction aggregate fillers	Also producing landfill covers, landfill liners, and backfill. See "Shale." See Ganis and Hopkins (1984a, 1990a, 1990b, 1995) and Hopkins and Ganis (1990) for geology and descriptions.
429	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Ensminger West York 7½' 39°56'14"N 76°47'20"W	Kinzers limestone	agricultural lime poultry grit construction aggregate fillers	Also producing landfill covers, landfill liners, and backfill. See "Shale." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE (cont.)			
			York County (cont.)			
424	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Roosevelt West York 7½' 39°58'04"N 76°45'34"W	Kinzers limestone	agricultural lime poultry grit fillers	See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.
428	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Williams West York 7½' 39°56'15"N 76°46'58"W	Kinzers limestone	agricultural lime poultry grit construction aggregate fillers	Also producing landfill covers, landfill liners, and backfill. See "Shale." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.
430	Medusa Mineral Company Biesecker Road Thomasville, PA 17364-0220 (717) 792-2631 (717) 792-2631	(717) 792-3963	underground Thomasville West York 7½' 39°55'18"N 76°51'24"W	Kinzers limestone	pulverized limestone for agriculture high-calcium limestone fillers and extenders whiting cement and glass manufacture fluxstone	Specializes in micron-size particles for fillers. See Cloos (1968) and Ganis and Hopkins (1995) for geologic description, O'Neill (1964) for analysis, and Berkheiser (1983) for whiting potential.
			LIMESTONE AND DOLOMITE			
			Adams County			
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Kinzers limestone Ledger dolomite	pulverized carbonate for agriculture fluxstone high-calcium quicklime construction aggregate high-Ca ls and high-Mg dol railroad ballast	Selectively mining in a geologically complex setting. See "Limestone" and "Dolomite." See Berkheiser (1983) and Hole (1968) for analyses.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			AGRICULTURAL MINERALS (cont.)			
			LIMESTONE AND DOLOMITE (cont.)			
			Lancaster County			
548	Martin Limestone, Inc. P. O. Box 550 Blue Ball, PA 17506 (717) 354-1300 (717) 354-1370	(717) 354-1330 (717) 354-1397	quarry Weaverland Terre Hill 7½' 40°08'15"N 76°03'26"W	Buffalo Springs limestone and dolomite Stonehenge limestone	pulverized limestone for agriculture high-magnesium pulverized dolomite construction aggregate	Probably selectively mining the Stonehenge Formation. See O'Neill (1964) for analyses. Company reports at least 88.2% total carbonates in pulverized limestone.
549	Rohrer's Quarry, Inc. P. O. Box 365 Lititz, PA 17543-0365 (717) 626-9760		quarry Rohrer's Lititz 7½' 40°07'57"N 76°20'06"W	Epler limestone and dolomite	pulverized carbonate for agriculture construction aggregate carbonate for SO2 absorption	See O'Neill (1964) for analysis.
			SLAG			
			Berks County			
533	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (610) 208-2505	(215) 956-5588 (610) 208-3028	slag bank Reading Reading 7½' 40°22'11"N 75°56'25"W	slag	soil neutralization and conditioning construction aggregate fill	Company claims product can replace limestone for neutralization and soil conditioning.
			BORROW AND GENERAL FILL			
			CLAY			
			Adams County			
369	Clapsaddle, Wilson, Sand Quarry 1790 Baltimore Pike Gettysburg, PA 17325 (717) 334-1344		open pit Clapsaddle Gettysburg 7½' 39°48'23"N 77°12'08"W	Quaternary clay	borrow and general fill fine aggregate topsoil	Mining weathered residuum from the York Haven Diabase. See Wood (1980) for geology.

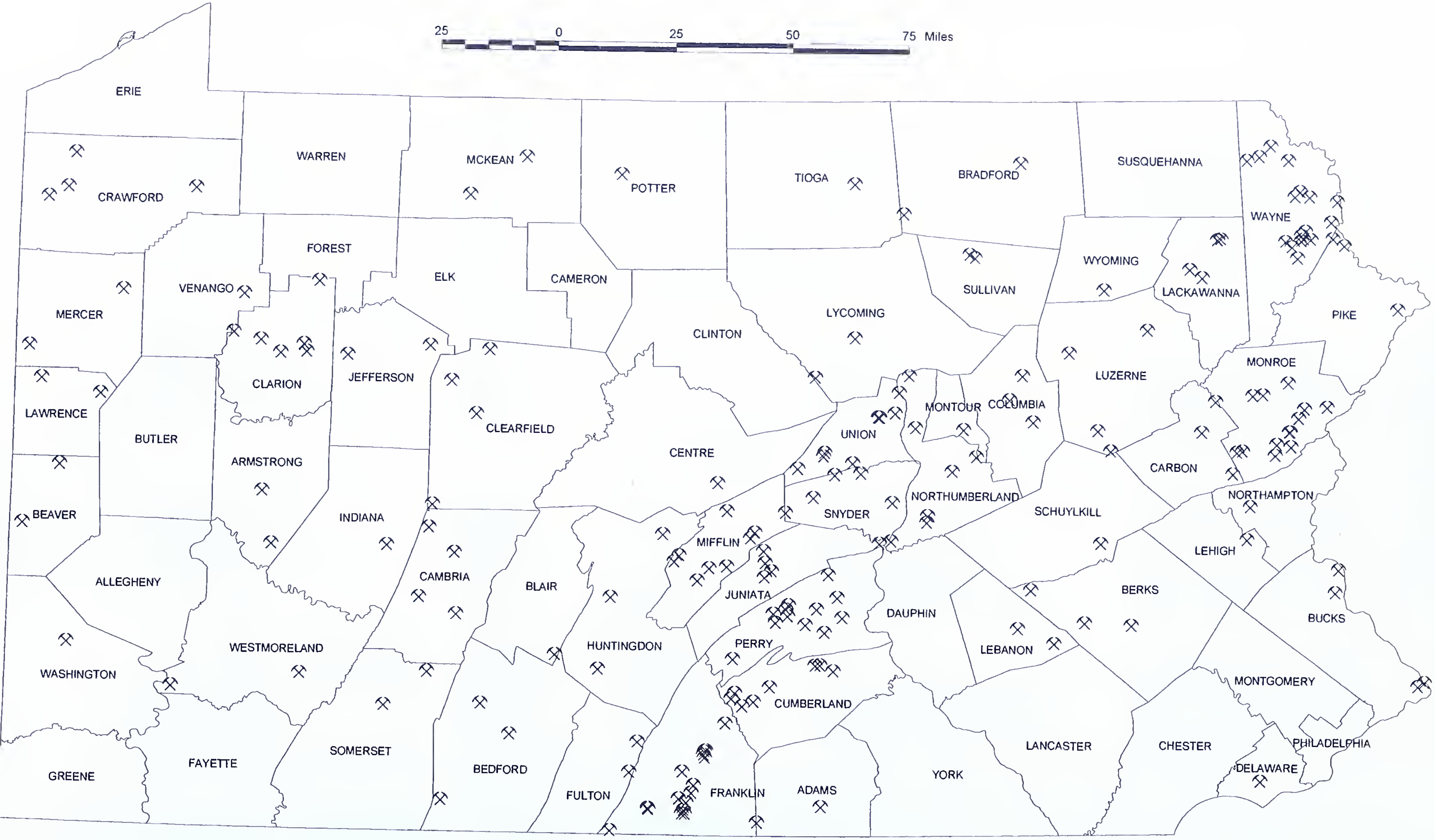

Figure 7. Locations of reporting producers of borrow and general fill. The majority mine shale.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			CLAY (cont.)			
			Lawrence County			
73	Hamilton, James F. R. D. 1 New Wilmington, PA 16142 (412) 946-2813		open pit Hamilton Edinburg 7½' 41°05'34"N 80°24'30"W	Quaternary clay	borrow and general fill construction aggregate topsoil	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
			Lycoming County			
306	P Stone, Inc. P. O. Box 254 Jersey Shore, PA 17740 (717) 745-7144 (717) 745-7166		quarry P Stone Linden 7½' 41°08'27"N 77°13'54"W	Loysburg clay residuum	borrow and general fill	Might have potential for landfill or lagoon liner. Also marketing approved construction aggregate from limestone and dolomite. See Faill and others (1977) for geology.
			COAL REFUSE			
			Lackawanna County			
473	Lackawanna Cinder and Silt Company P. O. Box 294 Honesdale, PA 18431 (717) 253-3694		cinder bank Marvine Scranton 7½' 41°26'44"N 75°38'06"W	cinders	borrow and general fill	Red cinders.
			Washington County			
125	Pawlosky, Anthony J. 1084 Western Avenue Hickory, PA 15340 (412) 746-4647		cinder bank Westland pile Midway 7½' 40°16'35"N 80°16'03"W	coal refuse	borrow and general fill	Mining "red dog."

	Name and Address		Type of Operation Name of Operation			
Map No.	Office Phone Operation Phone	Office Fax Operation Fax	Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			GNEISS AND RELATED ROCKS			
			Delaware County			
697	Pyramid Land Development Company 414 W. Knowlton Road Media, PA 19063 (610) 494-8627 (610) 494-4722		open pit Aston Media 7½' 39°52'38"N 75°25'30"W	Wissahickon schist	borrow and general fill construction aggregate landscape boulders rip-rap	Some serpentinite possible. Bedrock is mapped as oligoclase-mica schist.
			GRAVEL			
			Bucks County			
681	GROWS, Inc. 1000 New Ford Mill Road Morrisville, PA 19067 (215) 295-7193	(215) 295-7198	quarry Pennsbury Trenton East 7½' 40°10'36"N 74°44'53"W	Trenton gravel	borrow and general fill structural fill	
			Mercer County			
53	Ebbert, Gregory R. 580 Millcreek Road Utica, PA 16362 (412) 376-3934		open pit Ebbert Sandy Lake 7½' 41°22'26"N 80°04'51"W	Quaternary gravel	bank gravel	Mapped as kames, kame terraces, kame moraines, and eskers (Shepps and others, 1959).
			Monroe County			
617	Dehaven, Floyd, Jr. R. D. 1, Box 61 Scotrun, PA 18355 (717) 629-1731		open pit Dehaven Pocono Pines 7½' 41°04'46"N 75°23'20"W	Quaternary gravel	borrow and general fill	Mapped as unsorted clay, silt, sand, pebbles, cobbles, and boulders by Berg and others (1977).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				BORROW AND GENERAL FILL (cont.)		
				GRAVEL (cont.)		
				Tioga County		
297	Signor Brothers Box 78 Arnot, PA 16911 (717) 638-2773		open pit Signor Brothers Blossburg 7½' 41°44'32"N 77°04'12"W	Quaternary gravel	borrow and general fill	Mining glacial gravel.
				METABASALT		
				Adams County		
372	ISP Minerals, Inc. 1455 Old Waynesboro Road Blue Ridge Summit, PA 17214 (717) 794-2184	(717) 794-5248	quarry Charmian Iron Springs 7½' 39°45'28"N 77°27'32"W	Catoctin metabasalt	fill rip-rap construction aggregate roofing granules tennis-court material	See Fauth (1978) for geology, Smith and Barnes (1994) for general chemistry, and Berkheiser and Smith (1990a) for general description.
				SAND AND GRAVEL		
				Bradford County		
388	Bagley, Raymond, Sr. R. D. 1, Box 58 Canton, PA 17724 (717) 673-5088 (717) 673-8552		open pit Bagley Canton 7½' 41°38'53"N 76°52'00"W	Quaternary sand and gravel	borrow and general fill	Appears to be mining outwash and possible kame deposits of Towanda Creek.
377	Forbes, Ronald L. R. D. 2, Box 160 Wysox, PA 18854 (717) 265-3568		open pit Forbes Towanda 7½' 41°48'14"N 76°22'44"W	Quaternary sand and gravel	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SAND AND GRAVEL (cont.)			
			Bucks County			
683	GROWS, Inc. 1000 New Ford Mill Road Morrisville, PA 19067 (215) 295-7193	(215) 295-7198	dredge spoils Turkey Hill Trenton West 7½' 40°09'51"N 74°46'33"W	Trenton gravel	borrow and general fill structural fill topsoil	Probably extracting silt for landfill cover and topsoil from the dredge spoils.
			Clearfield County			
189	North Star Aggregates, Inc. P. O. Box R Ridgway, PA 15853 (814) 637-5599	(814) 637-5598	open pit Penfield Penfield 7½' 41°12'58"N 78°33'50"W	Quaternary sand and gravel	borrow and general fill construction aggregate sand products topsoil	Mining Quaternary alluvium.
			Crawford County			
26	Bechtel, James B., Excavating P. O. Box 44 Conneautville, PA 16406 (814) 587-2601		open pit Bechtel Conneautville 7½' 41°47'30"N 80°17'48"W	Quaternary sand and gravel	borrow and general fill construction aggregate	Mapped as Lavery Till by Shepps and others (1959).
40	Cornell, Edward R. D. 4, Box 50 Linesville, PA 16424 (814) 683-5871		open pit Cornell Linesville 7½' 41°39'14"N 80°24'16"W	Quaternary sand and gravel	borrow and general fill construction aggregate	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
			Lawrence County			
81	Book, Harold E. R. D. 1, Box 178 New Castle, PA 16101 (412) 652-8011		open pit Book Harlansburg 7½' 41°02'55"N 80°09'41"W	Quaternary sand and gravel	borrow and general fill coarse aggregate	Mapped as Kent end moraine (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SAND AND GRAVEL (cont.)			
			Luzerne County			
485	Bonomo Trucking Company 32 Pittston Avenue Yatesville, PA 18640 (717) 654-1951		open pit Bonomo's Topsoil Pittston 7½' 41°17'03"N 75°51'44"W	Quaternary sand and gravel Quaternary alluvium	borrow and general fill topsoil	Mining on the floodplain of the Susquehanna River.
			McKean County			
186	Castelli, John Peter Box 96 East Smethport, PA 16730 (814) 887-5875		open pit Castelli Smethport 7½' 41°48'56"N 78°25'31"W	Quaternary sand and gravel	borrow and general fill construction aggregate topsoil	Mining alluvium on the floodplain of Potato Creek.
			Mercer County			
61	Leali Brothers Excavating, Inc. 2850 Industrial Road Hermitage, PA 16148-9020 (412) 981-2438	(412) 981-9744	open pit Leali Mine No. 1 Sharon East 7½' 41°11'32"N 80°27'47"W	Quaternary sand and gravel	borrow and general fill	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
			Monroe County			
621	Beseeker, C. William R. D. 2, Box 2206-A Stroudsburg, PA 18360 (717) 420-1720	(717) 420-1820	open pit Flager Run East Stroudsburg 7½' 41°00'14"N 75°14'38"W	Quaternary sand and gravel	borrow and general fill	
618	Heller, John 1233 Heller's Lane Long Pond, PA 18334 (717) 646-7731		open pit Heller Pocono Pines 7½' 41°04'38"N 75°25'51"W	Quaternary sand and gravel	borrow and general fill	Mining Woodfordian end moraine. Product consists of mixed sand, gravel, and clay. For geology, see Berg and others (1977).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SAND AND GRAVEL (cont.)						
Pike County						
609	FAW Associates Route 6 West Milford, PA 18337 (717) 296-5586	(717) 296-8639	open pit FAW Milford 7½' 41°20'16"N 74°49'29"W	Quaternary sand and gravel	screened fill construction aggregate topsoil rip-rap	See Sevon and others (1989) for geology.
Wayne County						
588	Rosencrance, Les S., Inc. P. O. Box 399 Hawley, PA 18428 (717) 226-2084		open pit Berlin Twp. White Mills 7½' 41°33'46"N 75°12'35"W	Quaternary sand and gravel Catskill shale	borrow and general fill	Mining red shale in addition to sand and gravel.
SANDSTONE						
Carbon County						
507	Jamico, Inc. HC-2, Box 2840 Jim Thorpe, PA 18229 (717) 325-2064	(717) 325-9398	quarry South Pit Christmans 7½' 40°57'58"N 75°38'40"W	Catskill sandstone	borrow and general fill construction aggregate	Mining the Duncannon Member of the Catskill Formation. For geology, see Sevon (1975a).
Clarion County						
141	Amsler Oil and Gas R. D. 2 Knox, PA 16232 (814) 797-1615		quarry Amsler Oil and Gas Knox 7½' 41°13'58"N 79°30'24"W	Allegheny Group sandstone	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SANDSTONE (cont.)						
Clarion County (cont.)						
143	Rankin and Sons Excavating R. D. 1 Fairmount City, PA 16224 (814) 764-3562		open pit Rankin and Sons Strattanville 7½' 41°13'21"N 79°19'46"W	Allegheny Group sandstone	borrow and general fill sandstone (bank run)	
145	Stehle, Thomas 105 Oakwood Lane Shippenville, PA 16254 (814) 226-7727	(814) 227-2652	open pit Stehle Clarion 7½' ~41°11'41"N ~79°25'29"W	Pottsville Group sandstone	borrow and general fill	
Clearfield County						
191	Dimmick, Gerald S. R. D. 1, Box 526 Mahaffey, PA 15757 (814) 277-6518		open pit Dimmick Elliot Park 7½' 41°01'00"N 78°36'50"W	Allegheny Group sandstone	borrow and general fill	Mining sand and rock from the Millstone Formation.
Jefferson County						
151	Fitzsimmons, Glenn E. R. D. 4, Box 170 Brookville, PA 15825 (814) 849-5807		open pit Fitzsimmons Corsica 7½' ~41°11'30"N ~79°08'53"W	Allegheny Group sandstone	borrow and general fill	
Monroe County						
615	Pocono Excavators Red Rock Road Cresco, PA 18326 (717) 595-2293		open pit Pocono Excavators Mount Pocono 7½' 41°06'59"N 75°17'02"W	Catskill sandstone	borrow and general fill	Mining gray sandstone and red shale.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SANDSTONE (cont.)			
			Potter County			
231	Majot, Joseph S. P. O. Box 320 Coudersport, PA 16915 (814) 274-7533		open pit Majot Coudersport 7½' 41°46'02"N 78°02'02"W	Catskill sandstone	borrow and general fill	
			Wayne County			
581	Mahnob, Inc. P. O. Box 248 Honesdale, PA 18431 (717) 253-0693 (717) 224-6835	(717) 253-2505 (717) 224-6686	quarry Eldreds Galilee 7½' 41°41'36"N 75°10'51"W	Catskill sandstone	borrow and general fill coarse aggregate	
			SHALE			
			Armstrong County			
162	Edwards, Robert J. R. D. 1, Box 205-B Ford City, PA 16226 (412) 548-8718		open pit Manor Twp. Mosgrove 7½' 40°45'55"N 79°29'09"W	Glenshaw shale	borrow and general fill	
166	White, Thomas J. R. D. 1, Box 82-W Avonmore, PA 15618 (412) 478-3691	(412) 478-1112	open pit White Avonmore 7½' 40°36'04"N 79°26'32"W	Glenshaw shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Bedford County			
224	Fleegle, Robert L. R. D. 1, Box 361-B Bedford, PA 15522 (814) 623-8275		open pit Fleegle Bedford 7½' 40°07'12"N 78°34'36"W	Hamilton Group shale	borrow and general fill	
228	Shaffer, F. Paul P. O. Box 59 Hyndman, PA 15545 (814) 842-3298		open pit Shaffer Hyndman 7½' 39°48'59"N 78°43'41"W	Marcellus shale Needmore shale	borrow and general fill	Marcellus and Needmore Formations, undivided. See de Witt (1974) for geology.
226	Stultz, Jeff, and Earl Miller R. D. 1, Box 312 Everett, PA 15537 (814) 623-5852		open pit Stultz and Miller Everett West 7½' 40°01'28"N 78°27'27"W	Reedsville shale	borrow and general fill	
			Berks County			
529	Beehtold, Mark J. 580 Bashore Street Bethel, PA 19507 (717) 933-4530		open pit Bechtold Bethel 7½' 40°28'55"N 76°20'53"W	Hamburg sequence shale and graywacke	borrow and general fill	
532	Zwicky, W. David R. D. 1, Box 285 Robesonia, PA 19551 (610) 693-5606		open pit W.D. Zwieky Strausstown 7½' 40°22'41"N 76°07'49"W	Hamburg sequence shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Blair County			
209	Long, Terry L. R. D. 1 Martinsburg, PA 16662 (814) 793-3993		open pit Henrietta quarry Martinsburg 7½' 40°16'30"N 78°16'49"W	Reedsville shale	borrow and general fill	
			Bucks County			
663	Segletes, Ralph E. 255 Hollow Horn Road Pipersville, PA 18947 (610) 847-2168		open pit Red Rock Lumberville 7½' 40°27'46"N 75°06'20"W	Brunswick shale	borrow and general fill	
661	Weaver, Marlyn "Rube," Excavating, Inc. 239 Upper Tinicum Church Road Upper Black Eddy, PA 18972 (610) 294-9136		open pit Weaver Excavating Frenchtown 7½' 40°32'00"N 75°05'24"W	Brunswick shale	borrow and general fill	Possibly mining hornfels as well as shale. For geology, see Willard and others (1959).
			Cambria County			
195	Bender, Richard A. P. O. Box 146 Carrolltown, PA 15722 (814) 344-6613		open pit Bender Carrolltown 7½' 40°35'14"N 78°41'33"W	Glenshaw shale	borrow and general fill	
197	Helsel, Elwood 544 Munster Road Portage, PA 15946 (814) 736-8528		open pit Helsel Ebensburg 7½' 40°23'49"N 78°40'57"W	Casselman shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Cambria County (cont.)			
196	Rose, Donald D. 197 Bracken Street Johnstown, PA 15909-4405 (814) 322-4948		open pit Rose Nanty Glo 7½' 40°26'51"N 78°50'06"W	Glenshaw shale	borrow and general fill	
194	Whited, Gerald 263 Morris Street Barnesboro, PA 15714 (814) 948-8621		open pit Whited Barnesboro 7½' 40°39'50"N 78°47'55"W	Glenshaw shale	borrow and general fill	
			Carbon County			
508	Eckhart, Douglas D. 3560 Hahn's Dairy Road Palmerton, PA 18071 (610) 826-5159		open pit Eckhart Palmerton 7½' 40°50'06"N 75°31'11"W	Mahantango shale	borrow and general fill topsoil	See Epstein and others (1974) for geology.
			Centre County			
244	Swank, Thomas B. R. D. 1, Box 53-BB Spring Mills, PA 16875 (814) 364-1844		open pit Swank Centre Hall 7½' 40°48'47"N 77°37'40"W	Reedsville shale	borrow and general fill	
			Clarion County			
139	Mealy, David R. D. 1, Box 107 Tionesta, PA 16353 (814) 354-2311		open pit Round Town Tylersburg 7½' 41°25'07"N 79°16'13"W	Allegheny Group shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Clarion County (cont.)						
144	Neiswonger Construction R. D. 1, Box 223 Strattanville, PA 16258 (814) 764-3455	(814) 764-5772	open pit Neiswonger Strattanville 7½' 41°11'57"N 79°19'04"W	Allegheny Group shale Allegheny Group sandstone	borrow and general fill	
140	Weaver, W. Dean P. O. Box 10 Kossuth, PA 16331 (814) 797-5919		open pit Weaver Kossuth 7½' ~41°15'16"N ~79°37'13"W	Allegheny Group shale	borrow and general fill	
Clearfield County						
190	Fill-Source Associates 368 Kiwanis Trail Dubois, PA 15801 (814) 371-4334	(814) 371-8674	open pit Fill-Source Luthersburg 7½' 41°07'08"N 78°43'01"W	Conemaugh Group shale	borrow and general fill	See Edmunds and Berg (1971) for geology.
193	Fry, John and William P. O. Box 308 Cherry Tree, PA 15724 (814) 743-5650	(814) 743-5652	open pit Fry Barnesboro 7½' 40°44'08"N 78°47'10"W	Glenshaw shale	borrow and general fill	
Columbia County						
394	Bartholomew, Clyde Sr. and Steven D. R. D. 2 Orangeville, PA 17859 (717) 784-1779		open pit Barts Shale and Fill Bloomsburg 7½' 41°04'12"N 76°25'48"W	Catskill shale	borrow and general fill	Mining the Sherman Creek Member of the Catskill Formation. For geology, see Inners (1981).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				BORROW AND GENERAL FILL (cont.)		
				SHALE (cont.)		
				Columbia County (cont.)		
391	Sokol, Inc. P. O. Box 366 Bloomsburg, PA 17815 (717) 784-4411	(717) 784-5102	open pit Stillwater Benton 7½' 41°08'44"N 76°22'34"W	Trimmers Rock shale	borrow and general fill	
397	Young, Robert C., Inc. Second and Fair Streets Mifflinville, PA 18631 (717) 759-8917	(717) 759-8698	open pit Robert Young Mifflinville 7½' 41°00'03"N 76°20'03"W	Catskill shale	borrow and general fill	See Inners (1981) for geology.
				Crawford County		
36	Agnew, Bryan M. R. D. 2, Box 337 Conneaut Lake, PA 16316 (814) 382-2151		open pit Agnew Harmonsburg 7½' 41°41'10"N 80°19'23"W	Bedford shale	borrow and general fill	See Schiner and Gallaher (1979) for geology.
33	Watson, Robert E. and Ruth Ann R. D. 4, Box 7 Centerville, PA 16404 (814) 967-4975 (814) 654-7688		open pit Watson Centerville 7½' 41°41'47"N 79°47'32"W	Bedford shale	borrow and general fill construction aggregate topsoil	Coarse aggregate is glacial gravel.
				Cumberland County		
357	Hamilton, Harold L., Sr. 261 Ridge Road Shippensburg, PA 17257 (717) 776-5197		open pit Hamilton Newville 7½' 40°08'06"N 77°28'36"W	Martinsburg shale	borrow and general fill	

BORROW AND GENERAL FILL (cont.)

SHALE (cont.)

Cumberland County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
353	Kough, E.E., Sons P. O. Box 134 Newville, PA 17241 (717) 776-5685		open pit Kough Sons Newville 7½' 40°10'49"N 77°24'43"W	Martinsburg shale	borrow and general fill	
347	Lebo, Dennis R. 845 Longs Gap Road Carlisle, PA 17013 (717) 243-9801		open pit Lebo Carlisle 7½' 40°14'58"N 77°12'31"W	Martinsburg shale	borrow and general fill	For geology, see Root (1978).
349	Minich, N.L., and Sons 730 N. College Street Carlisle, PA 17013 (717) 243-2856	(717) 243-8993	open pit Minich and Sons Carlisle 7½' 40°14'53"N 77°13'38"W	Martinsburg shale	borrow and general fill	See Root (1978) for geology.
356	Shuman, Jay E. 151 Turnpike Road Newburg, PA 17240 (717) 423-5209 (717) 423-6628		open pit Shuman Newburg 7½' 40°08'38"N 77°33'57"W	Martinsburg shale	borrow and general fill	
360	Snoke's Excavating and Paving, Inc. P. O. Box 247 Walnut Bottom, PA 17266 (717) 532-2857	(717) 530-1088	open pit Martin's Shippensburg 7½' 40°07'13"N 77°31'21"W	Martinsburg shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	BORROW AND GENERAL FILL (cont.)					
	SHALE (cont.)					
	Cumberland County (cont.)					
355	Swartz, Lewis D. 85 Hilltop Road Newburg, PA 17240 (717) 423-5426		open pit Swartz Newburg 7½' 40°09'43"N 77°33'08"W	Martinsburg shale	borrow and general fill	
350	Walter, John F., Excavating, Inc. P. O. Box 175 Newville, PA 17241 (717) 776-3148	(717) 776-4566	open pit Walter Carlisle 7½' 40°13'51"N 77°09'15"W	Martinsburg shale	borrow and general fill	See Root (1978) for geology.
	Franklin County					
274	Crider, Lester G. 2822 Rocky Springs Road Chambersburg, PA 17201 (717) 263-4448		open pit Crider Chambersburg 7½' 39°58'00"N 77°40'30"W	Martinsburg shale and siltstone	borrow and general fill	See Root (1971) for geology.
272	Fayetteville Contractors, Inc. P. O. Box FCI Fayetteville, PA 17222 (717) 352-2186	(717) 352-2781	open pit Hege quarry Chambersburg 7½' 39°58'54"N 77°39'58"W	Martinsburg shale	borrow and general fill	Black carbonaceous and fissile shale.
281	Fayetteville Contractors, Inc. P. O. Box FCI Fayetteville, PA 17222 (717) 352-2186	(717) 352-2781	open pit Young No. 1 quarry Greencastle 7½' 39°50'55"N 77°43'22"W	Martinsburg shale Pinesburg Station shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Franklin County (cont.)			
286	Fayetteville Contractors, Inc. P. O. Box FCI Fayetteville, PA 17222 (717) 352-2186	(717) 352-2781	open pit Young No. 2 quarry Williamson 7½' 39°47'46"N 77°45'15"W	Martinsburg shale	borrow and general fill	
282	Grove North America P. O. Box 21 Shady Grove, PA 17256 (717) 597-8121		open pit Grove Williamson 7½' 39°49'50"N 77°46'28"W	Martinsburg shale	borrow and general fill	See Root (1968) for geology.
289	Haines Construction R. D. 2, Box 345 Hancock, MD 21750 (717) 294-3767		open pit Haines Construction Cherry Run 7½' 39°43'45"N 78°02'56"W	Hamilton Group shale	borrow and general fill	
288	Kershner, Charles W., Jr., and Son 12873 Ridge Road Greencastle, PA 17225 (717) 597-7671		open pit Kershner and Son Greencastle 7½' 39°47'02"N 77°44'58"W	Martinsburg shale	borrow and general fill	See Root (1968) for geology.
273	Martin, David H. 4961 Cumberland Highway Chambersburg, PA 17201 (717) 264-2168	(717) 264-0221	open pit No. 2 Chambersburg 7½' 39°58'40"N 77°40'14"W	Martinsburg shale and siltstone	borrow and general fill	

Map No.	Name and Address	Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				BORROW AND GENERAL FILL (cont.)			
				SHALE (cont.)			
				Franklin County (cont.)			
283	Martin, David H. 4961 Cumberland Highway Chambersburg, PA 17201	(717) 264-2168	(717) 264-0221	open pit No. 3 Greencastle 7½' 39°49'10"N 77°44'36"W	Martinsburg shale	borrow and general fill	See Root (1971) for geology.
284	McCulloh, Robert D. 5006 Buchanon Trail West Greencastle, PA 17225	(717) 597-2702		open pit McCulloh Mercersburg 7½' 39°48'04"N 77°53'53"W	Martinsburg shale	borrow and general fill	
287	Mills, Allen L. 7201 Slabtown Road Waynesboro, PA 17268	(717) 749-3627		open pit Mills Williamson 7½' 39°47'03"N 77°45'40"W	Martinsburg shale	borrow and general fill	
280	P & W Excavating Company P. O. Box 712 McConnellsburg, PA 17233	(717) 485-5141	(717) 485-5196	open pit P & W Bower Greencastle 7½' 39°52'21"N 77°42'54"W	Martinsburg shale	borrow and general fill	See Root (1968) for geology. See Hoover and others (1971) for analysis.
285	Robinson, Carl L. 7633 Dusty Road Mercersburg, PA 17236	(717) 328-2007		open pit Robinson Excavating Mercersburg 7½' 39°47'50"N 77°53'46"W	Martinsburg shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Franklin County (cont.)			
271	Snoke's Excavating and Paving, Inc. P. O. Box 247 Walnut Bottom, PA 17266 (717) 532-2857	(717) 530-1088	open pit Vaughn's Shippensburg 7½' 40°03'58"N 77°35'20"W	Martinsburg shale	borrow and general fill	
276	Walls Brothers Salvage 5268 Race Track Road St. Thomas, PA 17252 (717) 369-3919		open pit Walls Brothers Salvage St. Thomas 7½' 39°54'45"N 77°45'41"W	Martinsburg shale	borrow and general fill	
275	Young, M. 1540 May-Mar Drive Chambersburg, PA 17201 (717) 264-9324		open pit M. Young Chambersburg 7½' 39°57'28"N 77°40'14"W	Martinsburg shale	borrow and general fill	See Root (1971) for geology.
			Fulton County			
266	Hill, Robert A. P. O. Box 64 McConnellsburg, PA 17233 (717) 485-4259		open pit Hill McConnellsburg 7½' 39°54'39"N 77°58'26"W	Reedsville shale	borrow and general fill	See Pierce (1966) for geology.
265	Richards, K.G. 810 Lincoln Way East McConnellsburg, PA 17233 (717) 485-3032 (717) 485-4549		open pit Richards Burnt Cabins 7½' 40°00'22"N 77°56'35"W	Reedsville shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Huntingdon County			
257	Eagle Excavation, Inc. R. D. 1, Box 730 Petersburg, PA 16669 (814) 667-2336 (814) 667-3401		open pit Eagle Excavation McAlevys Fort 7½' 40°39'14"N 77°50'58"W	Clinton Group shale	borrow and general fill	
260	Marks Brothers R. D. 4, Box 167-A Huntingdon, PA 16652 (814) 643-1774	(814) 643-1777	open pit Marks Brothers Huntingdon 7½' 40°27'25"N 78°03'32"W	Hamilton Group shale	borrow and general fill	
263	Runk, Ralph W. Box 2 Broadtop, PA 16621 (814) 448-2258		open pit Ralph Runk Exc. Saltillo 7½' ~40°13'52"N ~78°06'26"W	Mauch Chunk shale	borrow and general fill	Mining red shale.
			Indiana County			
168	Coy, Robert A. R. D. 2, Box 543 Clymer, PA 15728 (412) 254-2129		open pit Coy's Strongstown 7½' 40°36'20"N 78°58'12"W	Glenshaw shale	borrow and general fill	
			Jefferson County			
150	Whelpley, Fred, Excavation R. D. 1, Box 975 Brockway, PA 15824 (814) 265-0635		open pit Whelpley Falls Creek 7½' ~41°13'36"N ~78°48'30"W	Conemaugh Group shale	borrow and general fill	Mining both shale and sandstone. See Glover and Bragonier (1978) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Juniata County			
330	Hosler, James H. R. D. 2, Box 1005 Port Royal, PA 17082 (717) 527-4774		open pit Hosler shale bank Mifflintown 7½' 40°31'20"N 77°26'07"W	Rose Hill shale	borrow and general fill	
329	Long's Excavation, Inc. R. D. 2, Box 629 Port Royal, PA 17082 (717) 436-9144		open pit Long's Mifflintown 7½' 40°32'28"N 77°24'25"W	Rose Hill shale	borrow and general fill	See Conlin and Hoskins (1962) for geology.
328	McKnight, Carl M. 23 North Sixth Street Mifflintown, PA 17059 (717) 436-2635		open pit Licking Creek Mifflintown 7½' 40°34'00"N 77°25'56"W	Rose Hill shale	borrow and general fill	
325	Zartman, Gene D. P. O. Box 786 Sunbury, PA 17801-0786 (717) 286-5628	(717) 988-1861	open pit Zartman Dalmatia 7½' 40°37'40"N 76°58'04"W	Mahantango shale	borrow and general fill	See Hoskins (1976) for geology.
327	Zeiders Excavating R. D. 3, Box 1286 Mifflintown, PA 17059 (717) 436-2866		open pit Zeiders Mifflintown 7½' 40°36'13"N 77°26'22"W	Rose Hill shale	borrow and general fill	See Conlin and Hoskins (1962) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Lackawanna County			
469	Mroczka, Adam R. D. 2, Box 421 Jermyn, PA 18433 (717) 254-6831		open pit Adam Mroczka Carbondale 7½' 41°33'53"N 75°34'07"W	Catskill shale	borrow and general fill	Mining red shale.
470	Mroczka, Stanley R. D. 2, Box 424 Jermyn, PA 18433 (717) 254-9559		open pit Stanley Mroczka Carbondale 7½' 41°33'48"N 75°34'11"W	Catskill shale	borrow and general fill	Mining red shale.
468	RZ Excavating, Inc. R. D. 2, Box 395 Jermyn, PA 18433 (717) 254-9613		open pit RZ Excavating Carbondale 7½' 41°34'00"N 75°33'19"W	Catskill shale	borrow and general fill	Mining red shale.
471	Stark, James F. 303 Mountain Avenue Chinchilla, PA 18410 (717) 587-5012		quarry Stark's Scranton 7½' 41°28'16"N 75°41'02"W	Catskill shale	borrow and general fill	
			Lebanon County			
520	Sanger, Glenn 935 East Maple Street Lebanon, PA 17042 (717) 273-3996		open pit Sanger Lebanon 7½' 40°21'40"N 76°24'04"W	Hamburg sequence shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Lebanon County (cont.)			
523	Zimmerman, L. and N., Excavating R. D. 1, Box 465 Newmanstown, PA 17073 (717) 949-2192	(717) 949-2634	open pit Sensenig Richland 7½' 40°18'50"N 76°15'13"W	Snitz Creek shale	borrow and general fill	
			Luzerne County			
503	Beltrami Brothers Real Estate P. O. Box 216 Hazleton, PA 18201 (717) 459-1491		open pit Beltrami Conyngham 7½' 40°54'35"N 76°01'03"W	Llewellyn shale	borrow and general fill	Company describes product as "shot rock." Apparently mixed siltstone, shale, sandstone, and anthracite.
490	Guszak, Henry R. D. 1, Box 105 Shickshinny, PA 18655 (717) 256-7655		open pit Guszak Shickshinny 7½' 41°12'56"N 76°10'58"W	Trimmers Rock shale	borrow and general fill	
500	Yamulla, David M. 980 North Laurel Street Hazleton, PA 18201 (717) 454-5674		open pit Luzerne Conyngham 7½' 40°58'20"N 76°04'10"W	Llewellyn shale	borrow and general fill	
			Lycoming County			
300	Vaughn, Wilbur C., Jr. R. D. 5, Box 39 Williamsport, PA 17701 (717) 322-8727		open pit Wilbur Vaughn Cogan Station 7½' 41°15'48"N 77°04'06"W	Lock Haven shale	borrow and general fill	See Faill and others (1977) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
McKean County						
187	Paulson, Donald F. P. O. Box 326 Mt. Jewett, PA 16740 (814) 778-5790		open pit Paulson Mount Jewett 7½' 41°41'48"N 78°39'20"W	Pottsville Group shale	borrow and general fill	Mining overburden from fire-clay mining operation.
Mifflin County						
252	Brannon, Russell R. D. 2, Box 358D Lewistown, PA 17044 (717) 242-0180 (717) 248-4115		open pit Brannon Lewistown 7½' 40°33'18"N 77°35'17"W	Clinton Group shale Rose Hill Fm.	borrow and general fill	Mining gray shale and some residual clay.
254	Cavanaugh, Lloyd E. 264 Middle Road Lewistown, PA 17044 (717) 248-9470		open pit Davidheiser Belleville 7½' 40°32'56"N 77°39'36"W	Clinton Group shale	borrow and general fill	
255	Espigh, Glenn S. R. D. 2, Box 209 McVeytown, PA 17051 (717) 899-7773		open pit Espigh Belleville 7½' 40°30'41"N 77°42'31"W	Clinton Group shale	borrow and general fill	
246	Fultz, Allen A. 321 Blue Hollow Road Milroy, PA 17063 (717) 667-6836		open pit Fultz's Shale Burnham 7½' 40°43'31"N 77°35'19"W	Reedsville shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Mifflin County (cont.)						
251	Kauffman, Jesse M. R. D. 2, Box 471 Belleville, PA 17004 (717) 935-2879		open pit Patton Allensville 7½' 40°34'10"N 77°48'11"W	Reedsville shale	borrow and general fill	
248	Mauery and Laub 632 Dry Valley Road Lewistown, PA 17044 (717) 242-9468		open pit Mauery and Laub Alfarata 7½' 40°39'39"N 77°28'32"W	Marcellus shale	borrow and general fill	Principally mining the Shamokin Member (dark shale). See Conlin and Hoskins (1962) for geology.
250	Peachy, Caleb J. R. D. 1, Box 281 Belleville, PA 17004 (717) 935-5289		open pit Peachey Allensville 7½' 40°35'18"N 77°47'00"W	Reedsville shale	borrow and general fill	
249	Wagner, Billy Joe R. D. 1, Box 94 Milroy, PA 17063 (717) 667-3541		open pit Wagner Alfarata 7½' 40°38'34"N 77°29'35"W	Marcellus shale	borrow and general fill	See Conlin and Hoskins (1962) for geology.
Monroe County						
629	Besecker, C. William R. D. 2, Box 2206-A Stroudsburg, PA 18360 (717) 420-1720	(717) 420-1820	open pit Saylorsburg shale Saylorsburg 7½' 40°55'01"N 75°16'35"W	Helderberg Group limestone Oriskany Group sandstone	borrow and general fill	Appears to be mining the interval from the Ridgeley through Coeymans Formations. See Bucek (1971) for geology.

BORROW AND GENERAL FILL (cont.)

SHALE (cont.)

Monroe County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
630	DeLuzio, Angelo Star Rt., Box 23 Kresgeville, PA 18333 (610) 681-4342		open pit DeLuzio Brodheadsville 7½' 40°54'22"N 75°28'40"W	Mahantango shale	borrow and general fill	
631	DeLuzio, Angelo Star Rt., Box 23 Kresgeville, PA 18333 (610) 681-4342		open pit DeLuzio Pohopoco Mountain 7½' 40°54'10"N 75°30'03"W	Mahantango shale	borrow and general fill	
632	Helm, Jane R. D. 5, Box 5532 Saylorsburg, PA 18353 (717) 992-4053		open pit Helm Saylorsburg 7½' 40°53'28"N 75°20'32"W	Mahantango shale	borrow and general fill	
623	Izzy Industries, Inc. 750 Huyler Street Teterboro, NJ 07608 (201) 288-3900	(201) 288-3988	open pit Young shale pit Saylorsburg 7½' 40°57'46"N 75°16'46"W	Marcellus shale	borrow and general fill	
627	Nevil, S. Kevin R. D. 4, Box 4201 Saylorsburg, PA 18353 (717) 992-6068		open pit Nevil Saylorsburg 7½' 40°55'30"N 75°20'09"W	Mahantango shale	borrow and general fill topsoil	Shale is used for road base.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Monroe County (cont.)						
620	Penn Hills Enterprises, Inc. P. O. Box 309 Analomink, PA 18320 (717) 421-6464	(717) 424-0310	open pit Penn Hills East Stroudsburg 7½' 41°01'58"N 75°13'10"W	Mahantango shale	borrow and general fill	Reported to be mining blue shale.
624	Perry, Charles, and Sons R. D. 2, Box 2349 Stroudsburg, PA 18360 (717) 992-6338 (717) 421-3857		open pit Perry Saylorsburg 7½' 40°57'44"N 75°16'59"W	Mahantango shale	borrow and general fill	
615	Pocono Excavators Red Rock Road Cresco, PA 18326 (717) 595-2293		open pit Pocono Excavators Mount Pocono 7½' 41°06'59"N 75°17'02"W	Catskill shale	borrow and general fill	Mining red shale and gray sandstone.
619	Riccobono, Frank J. P. O. Box 1217 Marshalls Creek, PA 18335 (717) 223-8073 (717) 223-7333	(717) 223-7179	open pit FJR Investment East Stroudsburg 7½' 41°02'11"N 75°07'34"W	Schoharie shale Esopus shale	borrow and general fill	
Montour County						
401	Diehl, Daniel W., and Son R. D. 3 Danville, PA 17821 (717) 437-2887		open pit Diehl Danville 7½' 40°58'40"N 76°37'13"W	Clinton Group shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Northampton County						
648	Collis Used Auto Parts 3160 West Dannersville Road Northampton, PA 18067 (610) 837-1232 (610) 262-6707	(610) 837-7848	open pit Collis Catasauqua 7½' 40°44'06"N 75°26'56"W	Martinsburg shale	borrow and general fill	
Northumberland County						
406	Diminick, Ferdinand A. 628 Elysburg Road Danville, PA 17821-8906 (717) 672-2795		open pit Diminick Danville 7½' 40°53'38"N 76°34'05"W	Trimmers Rock shale	borrow and general fill	May be mining siltstone or shale in the Trimmers Rock Formation.
404	Erb, Kenneth E. R. D. 1, Box 374 Milton, PA 17847 (717) 742-9045		open pit Erb Northumberland 7½' 40°59'02"N 76°49'08"W	Hamilton Group shale	borrow and general fill	Mining the Mahantango and Marcellus Formations, undifferentiated.
411	Ferster, Mark L. R. D. 1, Box 80-A Dornsife, PA 17823 (717) 758-1734	(717) 758-2994	open pit Dornsife Pillow 7½' 40°41'33"N 76°46'21"W	Trimmers Rock shale	borrow and general fill	See Hoskins (1976) for geology.
410	Ferster, Mark L. R. D. 1, Box 80-A Dornsife, PA 17823 (717) 758-1734	(717) 758-2994	open pit Red Cross Pillow 7½' 40°42'47"N 76°46'10"W	Catskill shale	borrow and general fill	Mining the Irish Valley Member of the Catskill Formation. For geology, see Hoskins (1976).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Northumberland County (cont.)			
408	Mowrey, Chester A. R. D. 4, Box 61 Sunbury, PA 17801 (717) 648-5066		open pit Mowrey Treverton 7½' 40°50'55"N 76°40'09"W	Hamilton Group shale	borrow and general fill	
402	Ulrich, Bowman J., Jr. 200 Liberty Street Watsontown, PA 17777 (717) 538-2380		open pit B.J. Ulrich Muncy 7½' 41°08'45"N 76°50'40"W	Mahantango shale	borrow and general fill fillers and extenders	See Faill (1979) for geology.
413	Witmer, S.S., Inc. R. D., Box 145-C Dalmatia, PA 17017 (717) 758-3932		open pit Witmer Dalmatia 7½' 40°38'04"N 76°55'13"W	Mahantango shale	borrow and general fill	Mining the Fisher Ridge Member of the Mahantango Formation. See Hoskins (1976) for geology.
			Perry County			
345	Armolt, Bobbi L. R. D. 1, Box 417 Shermans Dale, PA 17090 (717) 582-4672		open pit Armolt Shermans Dale 7½' 40°20'57"N 77°11'26"W	Harrell shale	borrow and general fill	See Dyson (1967) for geology.
339	Dobbs, Larry W. R. D. 1, Box 314 Loysville, PA 17047 (717) 438-3401		open pit Dobbs Spruce Hill 7½' 40°24'34"N 77°23'53"W	Marcellus shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Perry County (cont.)						
343	Dum, Benjamin R. D. 1, Box 64 Elliottsburg, PA 17024-9724 (717) 582-2110	(717) 582-7462	open pit Dum Landisburg 7½' ~40°22'28"N ~77°16'07"W	Marcellus shale Onondaga shale	borrow and general fill	
342	Kline, Herman C. R. D. 1, Box 329 Loysville, PA 17047 (717) 789-4353		open pit Kline Spruce Hill 7½' ~40°22'50"N ~77°23'22"W	Mahantango shale	borrow and general fill	Mining the Montebello Member. See Miller (1961) for geology.
335	Lesh, Harry B. R. D. 2 Newport, PA 17074 (717) 567-3451		open pits Harry B. Lesh Newport 7½' 40°27'38"N 77°08'21"W	Mahantango shale Harrell shale	borrow and general fill	See Dyson (1963) for geology.
340	Metz, Denny R. D. 1, Box 337-B Loysville, PA 17047 (717) 789-4329		open pit Metz Ickesburg 7½' 40°24'06"N 77°20'24"W	Mahantango shale	borrow and general fill	Mining the Sherman Ridge Member of the Mahantango Formation. See Miller (1961) for geology.
341	Mullen, Clyde R. R. D. 1, Box 386-A New Bloomfield, PA 17068 (717) 582-8982		open pit Mullen Duncannon 7½' 40°23'48"N 77°07'10"W	Brallier shale	borrow and general fill	See Dyson (1963) for geology

BORROW AND GENERAL FILL (cont.)

SHALE (cont.)

Perry County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
346	Reisinger, Steven C. R. D. 1, Box 68 Ickesburg, PA 17037 (717) 438-3743		open pit Reisinger Excavation Blain 7½' 40°15'58"N 77°33'37"W	Clinton Group shale	borrow and general fill	Mining a brown shale.
337	Smith, Clyde E. R. D. 1, Box 198 Elliottsburg, PA 17024 (717) 438-3349		open pit Clyde E. Smith Ickesburg 7½' 40°25'22"N 77°20'50"W	Mahantango shale	borrow and general fill	Intermittent production. See Miller (1961) for geology.
336	Stuber, George O. R. D. 1, Box 80 Ickesburg, PA 17037 (717) 438-3176		open pit Stuber Ickesburg 7½' 40°26'09"N 77°20'12"W	Mahantango shale	borrow and general fill	Mining the Sherman Ridge Member of the Mahantango Formation. See Miller (1961) for geology.
333	Stydinger Brothers R. D. 1, Box 499 Millerstown, PA 17062 (717) 438-3618		open pit Stydinger Millerstown 7½' 40°31'50"N 77°10'33"W	Mahantango shale	borrow and general fill	See Faill and Wells (1974) for geology; O'Neill and Barnes (1981) for analysis of Mahantango.
338	Thebes, Fred D., and Sons, Inc. R. D. 2, Box 133 New Bloomfield, PA 17068 (717) 582-4285 (717) 582-4654		open pit Thebes and Sons Newport 7½' 40°25'22"N 77°13'22"W	Tonoloway shale	borrow and general fill	"Shale" is shaly limestone.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Pike County						
603	Case, William V. R. D. 1, Box 1919 Beach Lake, PA 18405 (717) 729-7402		open pit Case Narrowsburg 7½' 41°33'46"N 75°05'14"W	Catskill shale	borrow and general fill	See Sevon and others (1989) for geology.
604	McKay, John S. HCR 1, No. 18, Mast Hope Village Lackawaxen, PA 18435 (717) 685-7001		open pit McKay Narrowsburg 7½' 41°32'25"N 75°02'26"W	Catskill shale	borrow and general fill	Red shale principally for use for roads on the property of the owner. See Sevon and others (1989) for geology.
Schuylkill County						
517	Ernst, J. Marlin, and Sons, Inc. R. D. 1, Box 1498 Orwigsburg, PA 17961 (717) 366-2471	(717) 366-3686	open pit Ernst and Sons Auburn 7½' 40°37'26"N 76°03'42"W	Mahantango shale	borrow and general fill	Inactive as of 1995.
Snyder County						
322	Bressler, Russell E. R. D. 3, Box 209-A Selinsgrove, PA 17870 (717) 374-4744		open pit Bressler's Shale Pit Freeburg 7½' 40°45'11"N 76°54'51"W	Hamilton Group shale	borrow and general fill	
320	Fetterolf, Rudolph I. 355 South Center Street Beavertown, PA 17813 (717) 658-7020		open pit Fetterolf Beavertown 7½' 40°46'12"N 77°14'18"W	Trimmers Rock shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Snyder County (cont.)			
319	Garrison, Virginia 233 Hetrick Road Beavertown, PA 17813 (717) 658-7172		open pit Garrison Beavertown 7½' 40°50'21"N 77°09'03"W	Clinton Group shale	borrow and general fill	
318	Richard's Excavating R. D. 2, Box 263 Middleburg, PA 17842 (717) 837-3407		open pit Richard's Excavating Middleburg 7½' 40°50'38"N 77°02'40"W	Trimmers Rock shale	borrow and general fill	Mining the Trimmers Rock or Catskill shale.
323	Underhill, Karl Richard, Jr. P. O. Box 362 McClure, PA 17841 (717) 658-3553		open pit Underhill McClure 7½' 40°43'22"N 77°21'02"W	Hamilton Group shale	borrow and general fill	Mining a hard gray shale and a soft red shale.
			Somerset County			
216	Grebeck, Mike R. D. 1 Stoystown, PA 15563 (814) 893-5348		open pit Grebeck Mining Stoystown 7½' 40°06'34"N 78°58'13"W	Glenshaw shale	borrow and general fill	
212	Shaffer Brothers Coal Company, Inc. Jay Street Windber, PA 15963 (814) 467-7972		open pit Shaffer Brothers Windber 7½' 40°12'56"N 78°47'43"W	Allegheny Group shale	borrow and general fill construction aggregate	Mining the Kittanning shale and claystone.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Sullivan County			
389	Leberfinger Construction, Inc. R. D. 1, Box 28 Muncy Valley, PA 17758 (717) 482-3826		open pit Leberfinger Overton 7½' 41°31'17"N 76°35'32"W	Catskill shale	borrow and general fill	
390	Norton, Max R. D. 1, Box 101 Shunk, PA 17768 (717) 924-3104		open pit Norton Overton 7½' 41°30'42"N 76°34'14"W	Catskill shale	borrow and general fill	
			Union County			
312	Boop, Clair R. R. D. 4, Box 19 Mifflinburg, PA 17844 (717) 966-1411		open pit Boop Hartleton 7½' 40°54'28"N 77°11'32"W	Clinton Group shale	borrow and general fill	
309	Day, Harold E., and Son R. D. 2, Box 521-D Lewisburg, PA 17837 (717) 524-0937		open pit Day Allenwood 7½' ~41°01'00"N ~76°58'22"W	Rose Hill shale	borrow and general fill	For geology, see Inners (in press).
310	Gessner, Dale E. R. D. 3, Box 421 Lewisburg, PA 17837 (717) 568-3771		open pit Gessner Allenwood 7½' 41°00'58"N 76°58'02"W	Rose Hill shale	borrow and general fill	For geology, see Inners (in press).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				BORROW AND GENERAL FILL (cont.)		
				SHALE (cont.)		
				Union County (cont.)		
315	Hoover, Leroy W. R. D. 1, Box 275 Millmont, PA 17845 (717) 922-1135		open pit Hoover Hartleton 7½' 40°53'46"N 77°11'50"W	Clinton Group shale	borrow and general fill	
317	Kahley, Eugene F. 2 Barnett Road Weikert, PA 17885-0027 (717) 922-1291		open pit Kahley Weikert 7½' 40°51'28"N 77°18'07"W	Clinton Group shale	borrow and general fill	
316	Knouse, Edgar W. R. D. 1, Box 127 Mifflinburg, PA 17844 (717) 966-2279		open pit Knouse Mifflinburg 7½' 40°52'32"N 77°04'41"W	Clinton Group shale	borrow and general fill	
308	Shreck, Robert S. R. D. 3, Box 362 Lewisburg, PA 17837 (717) 568-7565		open pit Shreck Allenwood 7½' ~41°01'42"N ~76°54'10"W	Mifflintown shale	borrow and general fill	Reports mining red and yellow shale. Possibly mining Bloomsburg as well as Mifflintown shale. For geology, see Inners (in press).
307	Willow Lake Excavation R. D. 1, Box 551 New Columbia, PA 17856 (717) 538-2790		quarry Willow Lake Allenwood 7½' 41°05'35"N 76°53'10"W	Rose Hill shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Venango County			
70	Stover, Arthur L. R. D. 2, Box 235 Oil City, PA 16301 (814) 676-3940		open pit Stover Kossuth 7½' 41°22'25"N 79°34'50"W	Allegheny Group shale	borrow and general fill	
			Wayne County			
580	Augello, Charles R. R. D. 3, Box 2370 Honesdale, PA 18431 (717) 253-3998		open pit Augello Galilee 7½' 41°41'42"N 75°14'29"W	Catskill shale	borrow and general fill dimension stone	Apparently mining both red shale as borrow and fill and "bluestone" as dimension stone.
596	Ciccone Excavating, Inc. R. D. 2 Honesdale, PA 18431 (717) 253-0718		quarry Adelia White Mills 7½' 41°30'10"N 75°14'10"W	Catskill shale	borrow and general fill	Red shale.
582	DeVrieze, Mary T. H. C. 1, Box 1172 Milanville, PA 18443 (717) 729-7988		open pit DeVrieze Damascus 7½' 41°40'39"N 75°03'54"W	Catskill shale	borrow and general fill	Mining red shale.
584	Dexter Construction Company R. D. 1, Box 1416 Beach Lake, PA 18405 (717) 729-7318	(717) 729-8407	open pit Dexter Construction Narrowsburg 7½' 41°36'54"N 75°05'36"W	Catskill shale	borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
BORROW AND GENERAL FILL (cont.)						
SHALE (cont.)						
Wayne County (cont.)						
579	Fasceski, Margaret D. R. D. 3, Box 2750 Honesdale, PA 18431 (717) 224-4465		open pit Fasceski Galilee 7½' 41°42'38"N 75°13'15"W	Catskill shale	borrow and general fill	Mining red shale.
574	Medved, Martin J. R. D. 2, Box 60-G Union Dale, PA 18470 (717) 727-2379		open pit Pit No. 1 Orson 7½' 41°48'32"N 75°26'29"W	Catskill shale	borrow and general fill	Mining red shale.
577	Olsen's Shale Bank Box 1222 Lakewood, PA 18439 (717) 798-2267		open pit Olsen's Lake Como 7½' 41°48'26"N 75°15'56"W	Catskill shale	borrow and general fill	Mining red shale.
586	Petroski, Stanley M. R. D. 4 Honesdale, PA 18431 (717) 253-4137		open pit Petroski White Mills 7½' 41°35'14"N 75°12'05"W	Catskill shale	borrow and general fill	
588	Rosencrance, Les S., Inc. P. O. Box 399 Hawley, PA 18428 (717) 226-2084		open pit Berlin Twp. White Mills 7½' 41°33'46"N 75°12'35"W	Catskill shale Quaternary sand and gravel	borrow and general fill	Mining red shale, also sand and gravel.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Wayne County (cont.)			
589	Schmidt, Donald R. D. 2, Box 121 Hawley, PA 18428 (717) 253-3786 (717) 253-2409		open pit Schmidt White Mills 7½' 41°33'41"N 75°10'49"W	Catskill shale	borrow and general fill	Mining red shale. Commercial operation in the Long Run and Walcksville Members.
587	Skinner, Duane E. HC 62, Box 832 Honesdale, PA 18431 (717) 729-7942	(717) 729-7942	open pit Skinner Excavating White Mills 7½' 41°34'26"N 75°13'06"W	Catskill shale	borrow and general fill construction aggregate	
576	Springer, Leo M. P. O. Box 87 Lake Como, PA 18437 (717) 798-2347		open pit Springer Lake Como 7½' ~41°51'10"N ~75°20'20"W	Catskill shale	borrow and general fill	Mining red shale.
591	Suhosky, Robert J. R. D. 2, Box 360 Honesdale, PA 18431 (717) 253-0346		open pit Suhosky Honesdale 7½' 41°33'22"N 75°17'02"W	Catskill shale	borrow and general fill construction aggregate	
590	Tiel, John, Excavating R. D. 4, Box 1670 Honesdale, PA 18431 (717) 253-3564		open pit John Tiel White Mills 7½' 41°33'26"N 75°13'09"W	Catskill shale	borrow and general fill	Mining red shale.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SHALE (cont.)			
			Wayne County (cont.)			
573	Watson, Barry R. D. 2, Box 2238 Lakewood, PA 18439 (717) 448-2758		open pit Barry Watson Orson 7½' 41°49'13"N 75°23'15"W	Catskill shale	borrow and general fill	
594	Yatsonsky, Eugene R. D. 2, Box 650 Honesdale, PA 18431 (717) 488-5379		open pit Yatsonsky Honesdale 7½' 41°32'20"N 75°15'26"W	Catskill shale	borrow and general fill	
			Westmoreland County			
174	Neiderhiser, Wilbert M. 81 Stom Road Ligonier, PA 15658 (412) 593-7387		open pit Neiderhiser Stahlstown 7½' 40°12'06"N 79°18'55"W	Casselman shale	borrow and general fill flagstone	Mining both shale for borrow and general fill and sandstone for flagstone.
			Wyoming County			
465	Goble, Donald H. R. D. 1, Box 114 Noxen, PA 18636 (717) 298-2145		open pit Goble Noxen 7½' 41°24'35"N 76°02'20"W	Catskill shale	borrow and general fill	Mining a gray rock.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SLAG			
			Beaver County			
108	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 847-3381	(215) 956-5588 (412) 847-7844	slag bank Beaver Falls Beaver Falls 7½' 40°49'35"N 80°19'15"W	slag	fill construction aggregate railroad ballast	
113	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 643-1600	(215) 956-5588 (412) 643-5156	slag bank Midland Midland 7½' 40°38'30"N 80°28'00"W	slag	fill construction aggregate railroad ballast	
			Berks County			
533	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (610) 208-2505	(215) 956-5588 (610) 208-3028	slag bank Reading Reading 7½' 40°22'11"N 75°56'25"W	slag	fill construction aggregate soil neutralization and conditioning	
			Lehigh County			
658	Celotex Corporation P. O. Box 663 Pittston, PA 18640 (717) 388-6131	(717) 388-2003	slag bank Fullerton Catasauqua 7½' 40°37'54"N 75°27'51"W	slag	borrow and general fill fillers in acoustic tile	

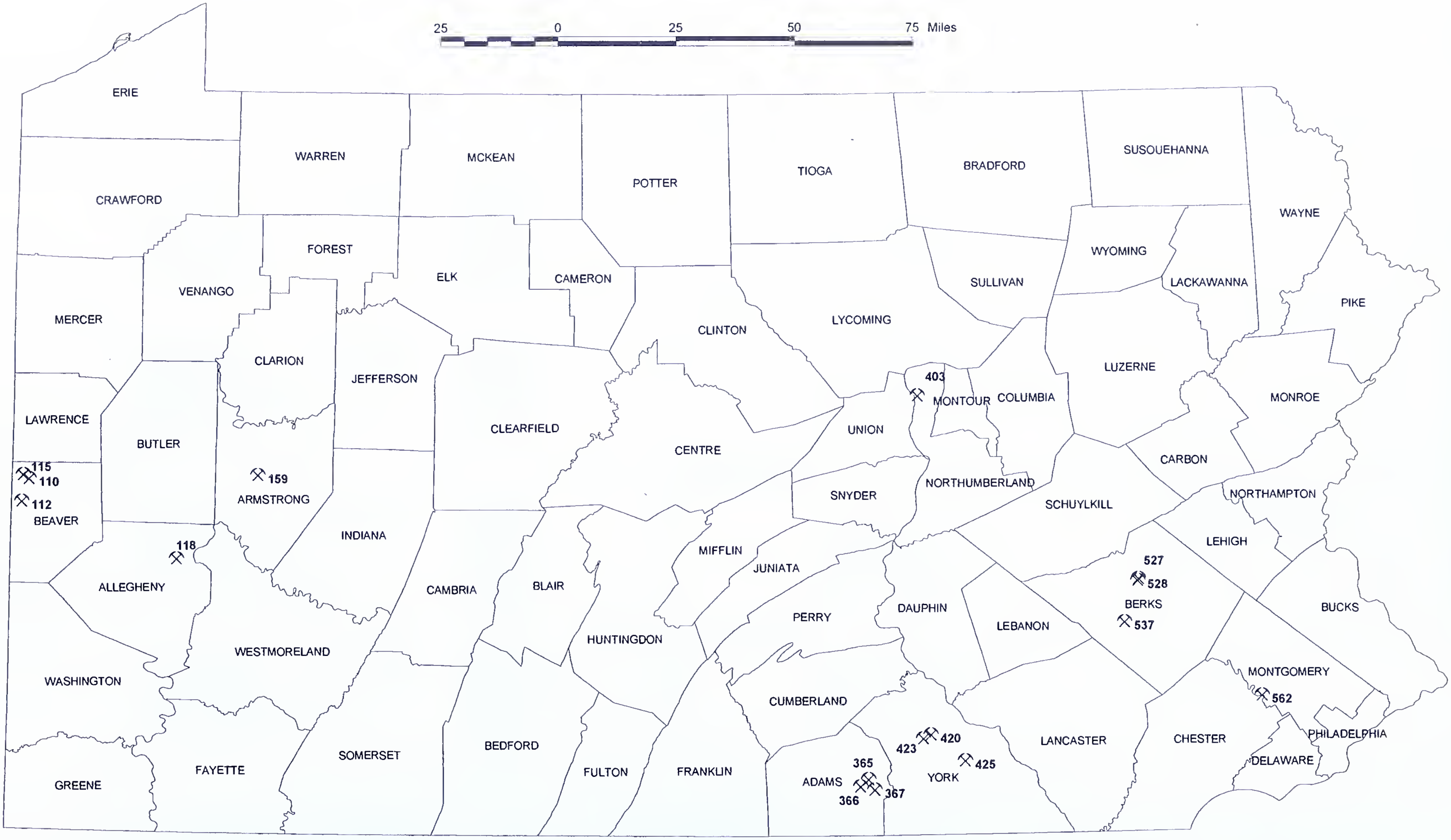

Figure 8. Locations of reporting producers of raw materials for bricks. Shale is mined at all locations except 425, at which phyllite is mined. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BORROW AND GENERAL FILL (cont.)			
			SLAG (cont.)			
			Westmoreland County			
175	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 929-4515	(215) 956-5588 (412) 929-2726	slag bank Rostraver Township Donora 7½' 40°09'05"N 79°50'10"W	slag	fill construction aggregate railroad ballast	
			SOIL			
			Carbon County			
504	Detweiler, Kenneth F. P. O. Box 568 Lake Harmony, PA 18624-0568 (717) 722-0791	(717) 722-0767	open pit Detweiler Blakeslee 7½' ~41°03'37"N ~75°35'10"W	Quaternary soil	borrow and general fill	Probably mining glacial materials. Product is used as fill around residential construction.
			BRICKS (CONSTRUCTION)			
			CLAY SHALE			
			Adams County			
365	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (717) 624-2144		open pit Alwine-Hamilton No. 1 Hampton 7½' 39°53'18"N 77°03'27"W	New Oxford shale and clay	bricks	
366	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (717) 624-2144		open pit Alwine-Mt. Pleasant McSherrystown 7½' 39°52'00"N 77°05'26"W	New Oxford shale and clay	bricks	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BRICKS (CONSTRUCTION) (cont.)			
			CLAY SHALE (cont.)			
			Adams County (cont.)			
367	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (717) 624-2144		open pit Oxford McSherrystown 7½' 39°51'24"N 77°02'00"W	New Oxford shale and clay	bricks	For geology, see Stose (1932).
			Armstrong County			
159	Continental Clay Company 260 Oak Avenue Kittanning, PA 16201 (412) 543-2611	(412) 545-9659	underground Continental Kittanning 7½' 40°49'15"N 79°31'06"W	Glenshaw underclay(?)	face brick tile chimney brick	Probably about 100 feet above the Upper Freeport coal, possibly at the horizon of the Brush Creek coal. For more information, see Berkheiser (1986).
			Beaver County			
112	Darlington Brick and Clay Products Box 346 Darlington, PA 16115 (412) 827-2700		strip mines Darlington Midland 7½' 40°43'32"N 80°28'35"W	Glenshaw shale	bricks tiles	See O'Neill and Barnes (1979) for analysis.
110	Darlington Brick and Clay Products Box 346 Darlington, PA 16115 (412) 827-2700		strip mines Darlington New Galilee 7½' 40°47'47"N 80°26'58"W	Allegheny Group underclay	bricks tiles	Mining the Middle and Lower Kittanning underclays. See O'Neill and Barnes (1979) for analyses.
115	Darlington Brick and Clay Products Box 346 Darlington, PA 16115 (412) 827-2700		strip mines White Property New Galilee 7½' 40°48'30"N 80°28'24"W	Allegheny Group underclay	bricks tiles	Mining Lower Kittanning underclay. May also use some of the Middle Kittanning underclay.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BRICKS (CONSTRUCTION) (cont.)			
			CLAY SHALE (cont.)			
			Berks County			
537	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (610) 562-8313		open pit Lower Heidelberg Sinking Spring 7½' 40°21'34"N 76°01'08"W	Hamburg sequence shale and clay Ontelaunee clay	bricks	Blends residual clay from the Ontelaunee and Epler Formations. For geology, see MacLachlan and others (1975).
528	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (610) 562-8313		open pit Shoemakersville No. 1 Temple 7½' 40°29'14"N 75°57'37"W	Hamburg sequence shale and clay	bricks	Some Quaternary alluvial clay and gravel is mined at pit No. 2. For geology, see MacLachlan (1979).
527	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (610) 562-8313		open pit Shoemakersville No. 2 Temple 7½' 40°29'36"N 75°57'28"W	Hamburg sequence shale and clay Quaternary clay	bricks	Some Quaternary alluvial clay and gravel is mined at this pit. For geology, see MacLachlan (1979).
			Chester County			
562	McAvoy Vitrified Brick Company McAvoy Lane Phoenixville, PA 19460 (610) 933-2932	(610) 666-6277	open pit McAvoy Valley Forge 7½' 40°07'30"N 75°28'15"W	Stockton shale	red face bricks red paving bricks	
			Northumberland County			
403	Watsontown Brick Company P. O. Box 68 Watsontown, PA 17777 (717) 538-2555		open pits Watsontown Brick Milton 7½' 41°04'07"N 76°50'43"W	Bloomsburg shale Wills Creek shale	shale for brick manufacture	See Berkheiser and Inners (1984) for a description of the operation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			BRICKS (CONSTRUCTION) (cont.)			
			CLAY SHALE (cont.)			
			York County			
423	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (717) 848-2589		open pit Dover Dover 7½' 40°00'43"N 76°50'16"W	New Oxford shale	bricks	Mining red shale.
420	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (717) 848-2589		open pit York-Rehm Dover 7½' 40°01'25"N 76°48'27"W	New Oxford shale and clay	bricks	
			PHYLLITE			
			York County			
425	Glen-Gery Corporation P. O. Box 7001 Wyomissing, PA 19610 (610) 374-4011 (717) 848-2589		open pit Glen-Gery York pit York 7½' 39°56'31"N 76°40'15"W	Harpers phyllite	bricks	
			SHALE			
			Allegheny County			
118	Redland Brick, Inc. 375 Rich Hill Road Cheswick, PA 15024 (412) 828-6300	(412) 828-6604	quarry Harmar New Kensington W 7½' 40°33'28"N 79°50'40"W	Glenshaw shale	bricks	No sales of raw materials.

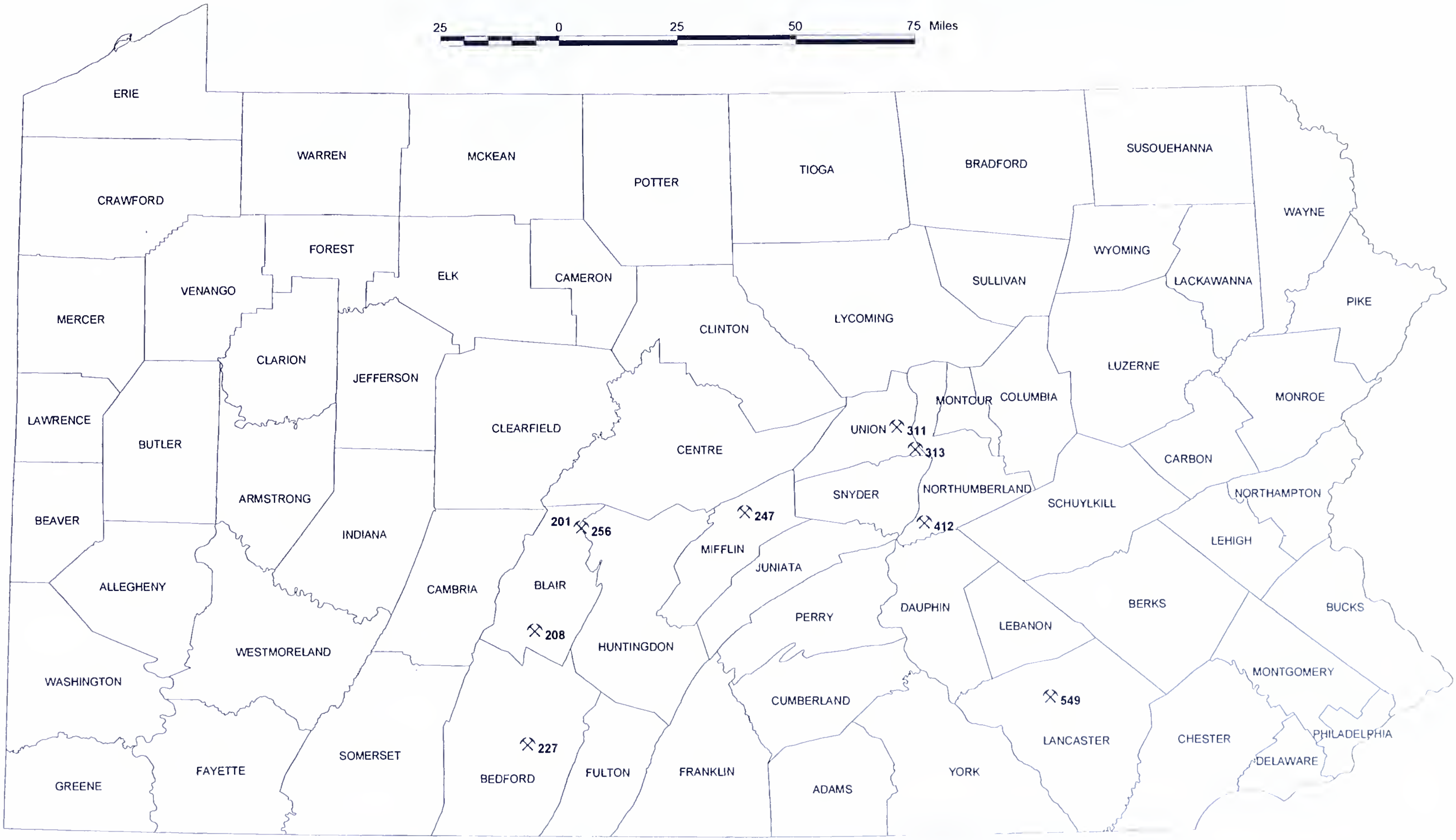

Figure 9. Locations of reporting producers of carbonate for SO_2 absorption. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CARBONATE FOR SO_2 ABSORPTION			
			LIMESTONE			
			Bedford County			
227	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 652-5121	(814) 224-6800 (814) 224-6817	quarry Ashcom Clearville 7½' 39°59'51"N 78°25'31"W	Coburn-Loysburg limestone	carbonate for SO2 absorption construction aggregate coal-mine rock dust coarse aggregate for concrete specialty fine grits	Mining the Coburn through Loysburg interval. Selectively mining the Linden Hall and Snyder Fms. for high-calcium products. A composite of 93 feet yields 92 percent CaCO3 and 2.9 MgCO3 (R.C. Smith, II, unpub. data, 1995). See MacQueen (1993).
			Blair County			
208	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 224-2121	(814) 224-6800 (814) 224-6805	quarry Roaring Spring Roaring Spring 7½' 40°20'46"N 78°23'55"W	Coburn-Axemann limestone	carbonate for SO2 absorption construction aggregate railroad ballast rip-rap	Mining the entire Coburn through Axemann interval. See Remick (1991) for SO2 sorbent application. See Atlee (1989) for history.
201	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone	carbonate for SO2 absorption coal-mine rock dust construction aggregate high-calcium limestone	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.
			Huntingdon County			
256	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone	carbonate for SO2 absorption coal-mine rock dust construction aggregate high-calcium limestone	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	CARBONATE FOR SO_2 ABSORPTION (cont.)					
	LIMESTONE (cont.)					
	Mifflin County					
247	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 667-2015	(717) 524-7995	quarry Naginey Burnham 7½' 40°42'39"N 77°33'21"W	Coburn-Loysburg limestone Linden Hall limestone	carbonate for SO_2 absorption sand for septic systems agricultural lime construction aggregate antiskid	A roadcut in the area exposes 206 feet of section containing 92 percent $CaCO_3$ and 2.4 $MgCO_3$. Of this, 109 feet contains 95 percent $CaCO_3$ and 2.2 $MgCO_3$ (R.C. Smith, II, unpub. data, 1995).
	Northumberland County					
412	Meckley's Limestone Products, Inc. R. D. 1, Box 950 Herndon, PA 17830 (717) 758-3001	(717) 758-2400	quarry Mandata Pillow 7½' 40°40'28"N 76°50'06"W	Keyser limestone Tonoloway limestone	carbonate for SO_2 absorption pulverized limestone for agriculture fillers construction aggregate	Operator custom blends and grinds. See Faill and others (1973) and Hoskins (1976) for description, geology, and analyses. See Meckley (1996) for a perspective on the company's history.
	Union County					
311	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 523-6880	(717) 524-7995	quarry Lewisburg Lewisburg 7½' 40°58'21"N 76°56'23"W	Keyser-Tonoloway limestone	carbonate for SO_2 absorption construction aggregate	
313	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251	(717) 524-7995	quarry Winfield Northumberland 7½' 40°54'12"N 76°52'00"W	Keyser-Tonoloway limestone	carbonate for SO_2 absorption sand for septic systems agricultural lime construction aggregate antiskid	Early source of lime in central Pennsylvania.

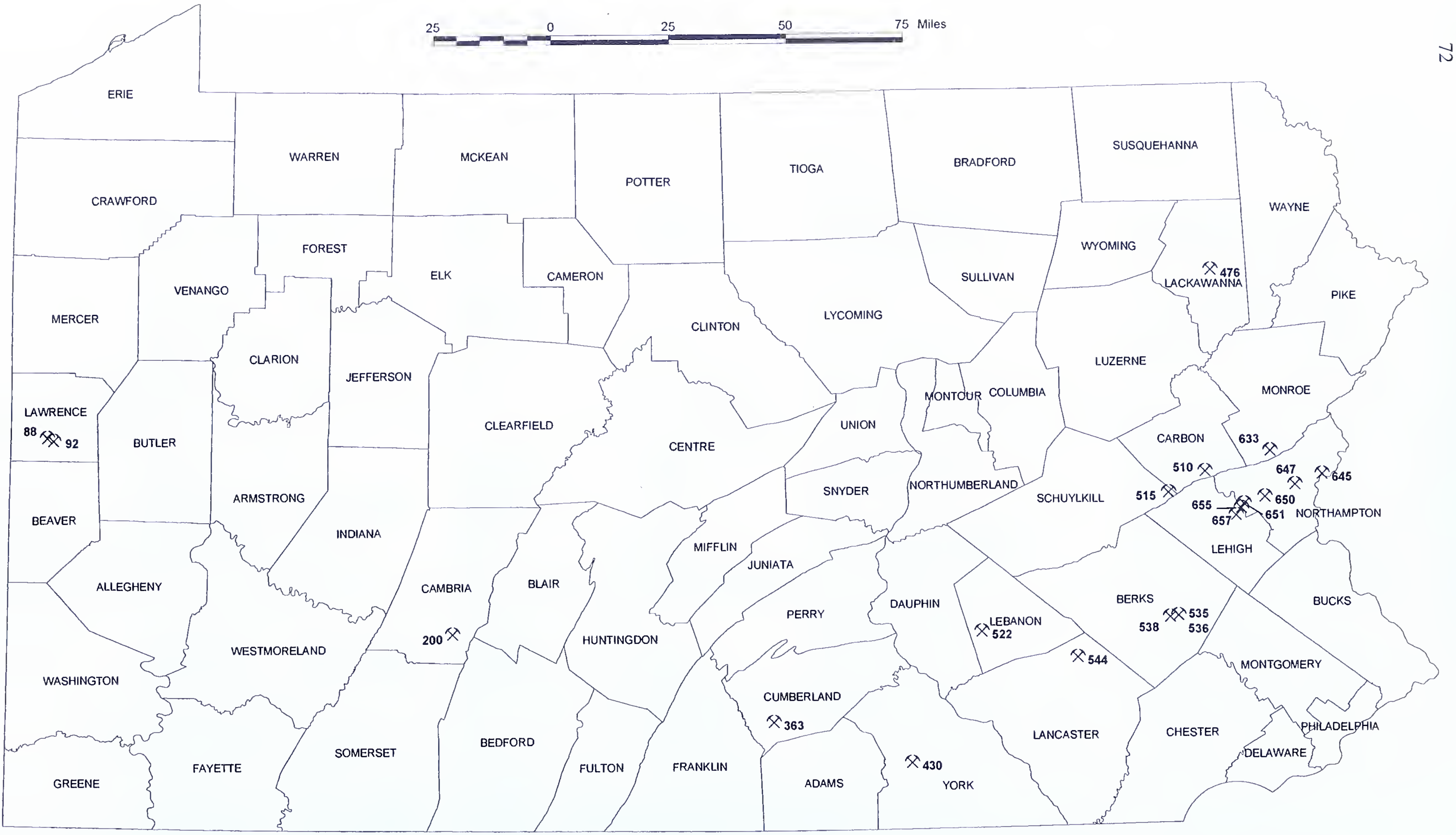

Figure 10. Locations of reporting producers of cement raw materials. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CARBONATE FOR SO_2 ABSORPTION (cont.)			
			LIMESTONE AND DOLOMITE			
			Lancaster County			
549	Rohrer's Quarry, Inc. P. O. Box 365 Lititz, PA 17543-0365 (717) 626-9760		quarry Rohrer's Lititz 7½' 40°07'57"N 76°20'06"W	Epler limestone and dolomite	carbonate for SO2 absorption pulverized carbonate for agriculture construction aggregate	See O'Neill (1964) for analysis.
			CEMENT RAW MATERIALS			
			CLAY SHALE			
			Monroe County			
633	Lehigh Portland Cement Company 7660 Imperial Way Allentown, PA 18195 (610) 366-4600 (610) 381-4050	(610) 366-4606	open pit Kunkletown shale pit Kunkletown 7½' 40°51'30"N 75°22'35"W	Buttermilk Falls shale New Scotland shale	clay for cement manufacture	White siliceous kaolinite. Captive mine. In the Buttermilk Falls, New Scotland, and Shriver Formations (Epstein and Hosterman, 1969).
			LIMESTONE			
			Berks County			
535	Allentown Cement Company, Inc. P. O. Box 199 Blandon, PA 19510-0199 (610) 926-1024	(610) 926-1906	quarry Oley No. 1 Birdsboro 7½' 40°21'36"N 75°46'02"W	Annville limestone Ontelaunee limestone	limestone for cement manufacture	Quarry held for potential reserve.
536	Allentown Cement Company, Inc. P. O. Box 199 Blandon, PA 19510-0199 (610) 926-1024 (610) 987-3332	(610) 926-1906 (610) 987-3399	quarry Oley No. 2 Birdsboro 7½' 40°21'36"N 75°46'02"W	Annville limestone Ontelaunee limestone	limestone for cement manufacture construction aggregate	Aggregate is produced from the Ontelaunee Formation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CEMENT RAW MATERIALS (cont.)						
LIMESTONE (cont.)						
Berks County (cont.)						
538	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 689-9551	(610) 867-1886	quarry Oley Birdsboro 7½' 40°21'20"N 75°48'02"W	Annville limestone	cement raw material construction aggregate high-calcium limestone	
Lancaster County						
544	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932	(610) 867-1886	quarry Schoeneck Ephrata 7½' 40°14'15"N 76°10'46"W	Annville limestone	limestone for cement manufacture fluxstone high-calcium limestone acid neutralization pulverized limestone for agriculture construction aggregate	Selectively mining the Myerstown and Ontelaunee for construction materials and the Annville for high-calcium products. See Berkheiser (1983) for analysis.
Lawrence County						
92	Medusa Cement Company P. O. Box 5668 Cleveland, OH 44101 (216) 371-4000 (412) 535-4311	(216) 371-2912 (412) 535-2013	strip mine Wampum New Castle South 7½' 40°54'39"N 80°20'37"W	Vanport limestone	limestone for cement manufacture	Also mining overlying Middle and Lower Kittanning and Lower Freeport coals for kiln fuel. See O'Neill (1964) for analysis.
Lebanon County						
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Annville limestone Ontelaunee dolomite	limestone for cement manufacture high-calcium limestone high-calcium quicklime fluxstone construction aggregate	Stripping Ontelaunee to mine Annville. See "Dolomite." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CEMENT RAW MATERIALS (cont.)			
			LIMESTONE (cont.)			
			Lehigh County			
657	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 262-5574	(610) 867-1886	quarry Whitehall Cementon 7½' 40°39'45"N 75°31'16"W	Jacksonburg limestone Epler dolomite	cement raw material coarse aggregate	Includes argillaceous (shaly) limestone.
655	Lafarge Corporation 5160 Main Street Whitehall, PA 18052 (610) 261-3456	(610) 261-3448	quarry Cementon Cementon 7½' 40°41'03"N 75°30'00"W	Jacksonburg limestone	limestone for cement manufacture	See Miller and others (1941) for a history of cement manufacture in Lehigh Co. and O'Neill (1964) for analysis.
			Northampton County			
645	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 258-2345	(610) 867-1886	quarry Martins Creek Bangor 7½' 40°46'54"N 75°09'52"W	Jacksonburg limestone Quaternary glacial gravel	cement raw material construction aggregate	See Kelly (1996) for a view of the company's reclamation effort.
647	Hercules Cement Company P. O. Box 69 Stockertown, PA 18083-0069 (610) 759-6300	(610) 759-7630	quarry Hercules Wind Gap 7½' 40°45'07"N 75°16'41"W	Jacksonburg limestone	limestone for cement manufacture	Miller and others (1939) described plant and cement district.
650	Keystone Cement Company 7311 Airport Road Bath, PA 18014-0058 (610) 837-1881		quarry Keystone Cement Catasauqua 7½' 40°42'56"N 75°24'04"W	Jacksonburg limestone	limestone for cement manufacture masonry cement construction aggregate	Operating two quarries. See "Construction Aggregate."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CEMENT RAW MATERIALS (cont.)						
LIMESTONE (cont.)						
Northampton County (cont.)						
651	Lafarge Corporation 5160 Main Street Whitehall, PA 18052 (610) 261-3456	(610) 261-3448	quarry Northampton Catasauqua 7½' 40°41'49"N 75°29'19"W	Jacksonburg limestone	limestone for cement manufacture	Appears to be former Martin-Marietta Co. quarry (O'Neill, 1964).
York County						
430	Medusa Mineral Company Biesecker Road Thomasville, PA 17364-0220 (717) 792-2631 (717) 792-2631	(717) 792-3963	underground Thomasville West York 7½' 39°55'18"N 76°51'24"W	Kinzers limestone	low-iron limestone for white cement pulverized limestone for agriculture fillers, extenders, whiting fluxstone glass manufacture high-calcium limestone	Specializes in micron-size particles for fillers. See Cloos (1968) and Ganis and Hopkins (1995) for geologic description, O'Neill (1964) for analysis, and Berkheiser (1983) for whiting potential.
SAND AND GRAVEL						
Lawrence County						
88	Russell Minerals, Inc. P. O. Box 510 Darlington, PA 16115 (412) 535-0770	(412) 535-3331	open pit Caravella New Castle South 7½' 40°55'10"N 80°22'10"W	Quaternary sand and gravel	concrete sand masonry sand construction aggregate filter sand	
SANDSTONE						
Cambria County						
200	B & Y Sand and Gravel, Inc. 506 Hillside Avenue State College, PA 16803 (814) 237-1863	(814) 237-1863	quarry Sidman Beaverdale 7½' 40°19'45"N 78°42'17"W	Glenshaw sandstone	sand for concrete manufacture construction aggregate topsoil	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CEMENT RAW MATERIALS (cont.)			
			SANDSTONE (cont.)			
			Carbon County			
510	Alliance Sand Company 415 Golf Road Palmerton, PA 18071 (908) 534-4116 (610) 826-2248		quarry Alliance Sand Co. Lehighton 7½' 40°48'07"N 75°38'32"W	Palmerton sandstone	silica for concrete manufacture construction aggregate	See Epstein and others (1974).
			Cumberland County			
363	NEP Sand and Gravel, Inc. 245 Butler Avenue Lancaster, PA 17601 (717) 390-9892 (717) 530-1559	(717) 390-9896 (717) 530-5752	open pit NEP Walnut Bottom 7½' 40°03'14"N 77°24'50"W	Antietam quartzite	sand for concrete manufacture masonry sand construction aggregate baseball infield mix	
			Lackawanna County			
476	Keystone Quarry, Inc. P. O. Box 249 Dunmore, PA 18512 (717) 348-3133	(717) 348-3135	quarry Keystone Quarry Olyphant 7½' 41°25'21"N 75°35'35"W	Pottsville Group sandstone	sand for concrete manufacture coarse aggregate fine aggregate gabion stone	
			Monroe County			
634	Chestnut Ridge Sand R.D. 2, Box 508-C Kunkletown, PA 18058 (610) 381-4100		quarry Altemose Wind Gap 7½' 40°51'28"N 75°22'29"W	Palmerton sandstone Ridgeley sandstone	concrete sand masonry sand filter sand sand-mound sand baseball infield mix	

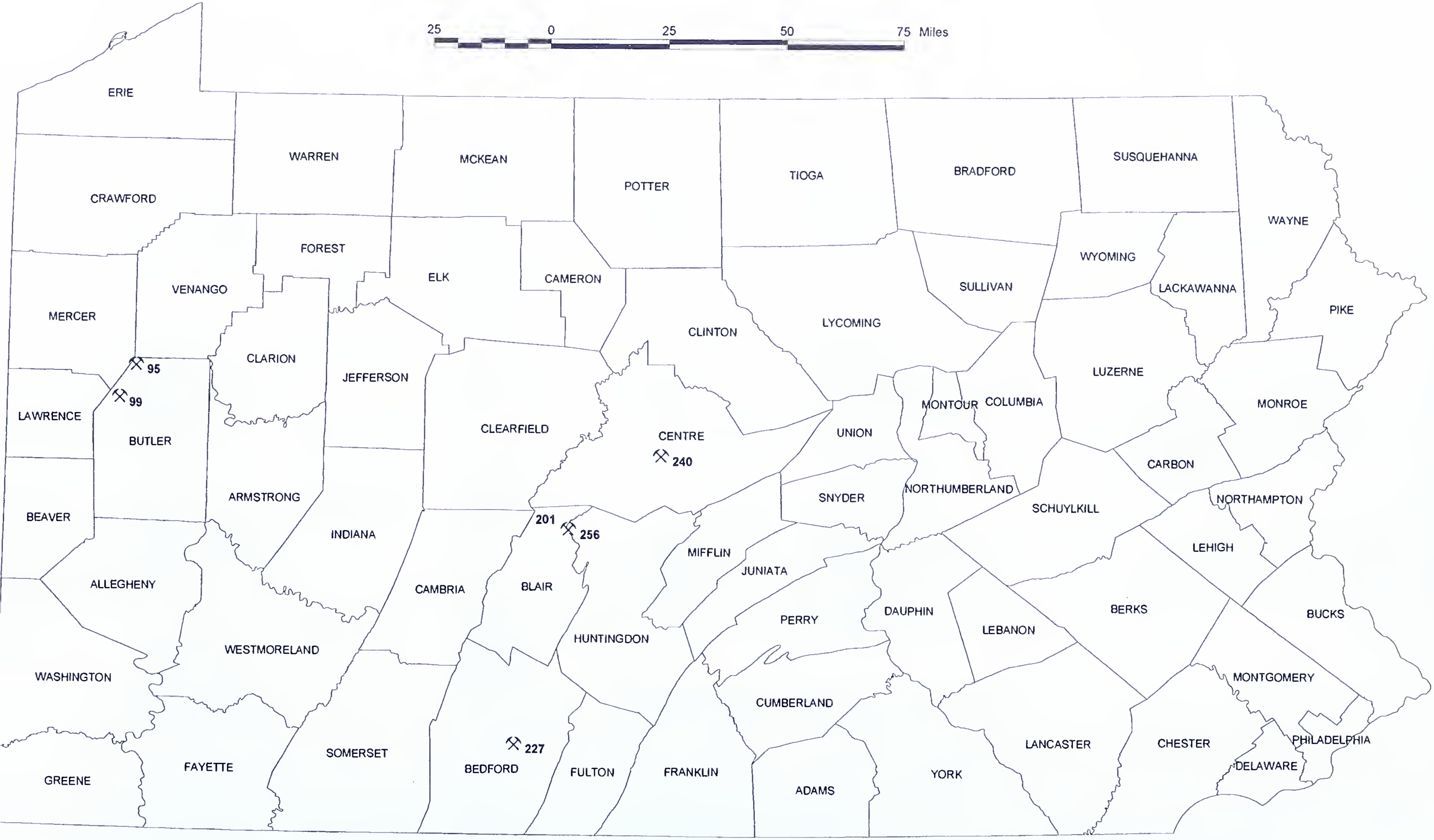

Figure 11. Locations of reporting producers of limestone for coal-mine rock dust. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CEMENT RAW MATERIALS (cont.)			
			SANDSTONE (cont.)			
			Schuylkill County			
515	Refractory Sand Company, Inc. P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559 (717) 386-4193	(717) 668-5910	quarry Andreas New Tripoli 7½' 40°44'22"N 75°47'32"W	Palmerton sandstone	silica for concrete manufacture construction aggregate refractory sand sand for golf course traps	See Sevon (1970) and Lash and others (1984) for geology. See Berkheiser (1985a) for analysis.
			COAL-MINE ROCK DUST			
			LIMESTONE			
			Bedford County			
227	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 652-5121	(814) 224-6800 (814) 224-6817	quarry Ashcom Clearville 7½' 39°59'51"N 78°25'31"W	Coburn-Loysburg limestone	coal-mine rock dust carbonate for SO_2 absorption construction aggregate coarse aggregate for concrete specialty fine grits antiskid	Mining the Coburn through Loysburg interval. Selectively mining the Linden Hall and Snyder Formations for high-calcium products. A composite of 93 feet yields 92 percent $CaCO_3$ and 2.9 $MgCO_3$ (R.C. Smith, II, unpub. data, 1995). See MacQueen (1993).
			Blair County			
201	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone	coal-mine rock dust carbonate for SO_2 absorption construction aggregate high-calcium limestone	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.
			Butler County			
95	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 735-2088		quarry Harrisville Barkeyville 7½' 41°08'51"N 79°59'36"W	Vanport limestone	coal-mine rock dust high-calcium limestone pulverized limestone for agriculture fluxstone construction aggregate	See O'Neill (1976) for analysis and thickness. See Pennsylvania Geological Survey (1986) for description of operation. See Snyder (1995) for history.

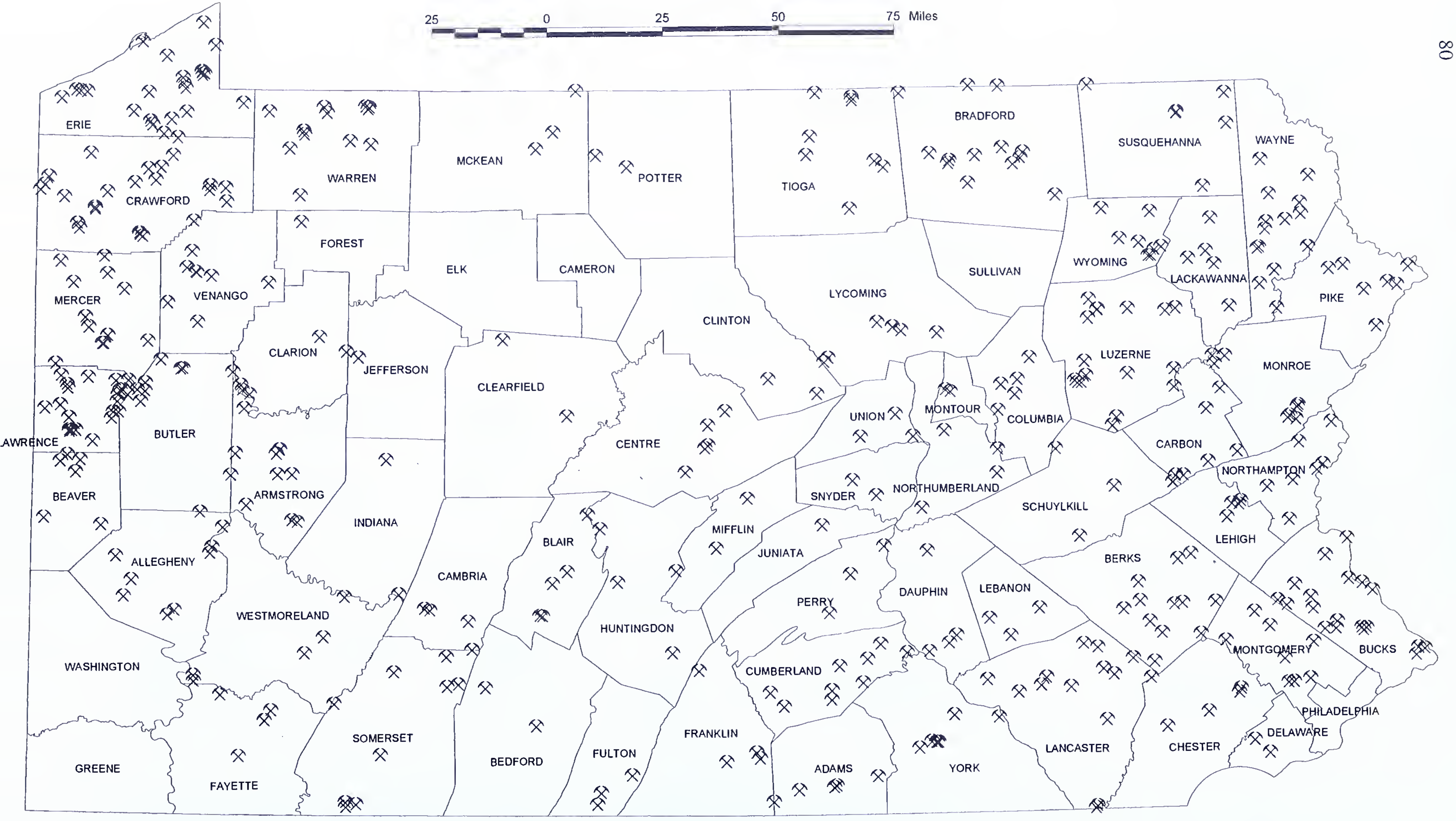

Figure 12. Locations of reporting producers of construction aggregate. Many in the glaciated areas of northwestern and northeastern Pennsylvania mine gravel or sand and gravel.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	COAL-MINE ROCK DUST (cont.)					
	LIMESTONE (cont.)					
	Butler County (cont.)					
99	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 794-6911		quarry Slippery Rock Slippery Rock 7½' 41°02'48"N 80°03'27"W	Vanport limestone	coal-mine rock dust high-calcium limestone pulverized limestone for agriculture fluxstone construction aggregate	See Pennsylvania Geological Survey (1986) for description of operation.
	Centre County					
240	Con-Lime, Inc. P. O. Box 118 Bellefonte, PA 16823 (814) 355-4744	(814) 355-0843	underground Con-Lime Bellefonte 7½' 40°53'24"N 77°50'30"W	Valentine Member limestone	coal-mine rock dust high-calcium limestone high-calcium quicklime fluxstone for glass pulverized limestone for agriculture	Reported to be very low in iron. Mining the Valentine Member of the Linden Hall Formation. A sample representing 84 feet contains 97 percent CaCO3, 1.1 MgCO3 (R.C. Smith, II, unpub. data, 1995). Also see Berkheiser (1985c) and Berkheiser and Smith (1995).
	Huntingdon County					
256	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone	coal-mine rock dust carbonate for SO2 absorption construction aggregate high-calcium limestone	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.
	CONSTRUCTION AGGREGATE					
	ARGILLITE AND HORNFELS					
	Adams County					
370	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 334-3165		quarry Gettysburg Gettysburg 7½' 39°48'05"N 77°12'45"W	Gettysburg argillite and hornfels	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Previously known as H.T. Campbell's Teeter quarry. See Hoff (1978) for geology and mineralogy. See Wood (1980) for regional geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			ARGILLITE AND HORNFELS (cont.)			
			Berks County			
542	Pottstown Trap Rock Quarries, Inc. 394 Sanatoga Road Pottstown, PA 19464 (610) 326-5921		quarry Douglassville Boyertown 7½' 40°15'33"N 75°41'36"W	Brunswick argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast	Very near diabase contact.
			Bucks County			
677	Better Materials Corporation Swamp Road and Route 232 Penns Park, PA 18943 (215) 598-3152	(215) 598-8363	quarry Penns Park Buckingham 7½' 40°15'34"N 75°00'32"W	Lockatong argillite Brunswick shale	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast rip-rap mineral filler	See Willard and others (1959) for geology.
669	Blooming Glen Materials P.O. Box 331 Blooming Glen, PA 18911 (215) 257-5188		quarry Blooming Glen Doylestown 7½' 40°21'56"N 75°13'59"W	Lockatong argillite Brunswick sandstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid rip-rap sand-mound sand	
662	Bucks County Crushed Stone 262 Quarry Road Ottsville, PA 18942 (610) 847-5211		quarry Bucks County Bedminster 7½' 40°29'37"N 75°10'08"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See Willard and others (1959) for geology.
673	Edison Quarry, Inc. 25 Quarry Road Doylestown, PA 18901 (215) 348-4382	(215) 345-5264	quarry Edison Doylestown 7½' 40°17'02"N 75°07'46"W	Lockatong argillite	coarse aggregate	See Willard and others (1959) for geology, Hoover and others (1971) for analyses.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			ARGILLITE AND HORNFELS (cont.)			
			Bucks County (cont.)			
675	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Eureka Doylestown 7½' 40°15'38"N 75°10'53"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See Willard and others (1959) for geology, Hoover and others (1971) for analyses.
678	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Rush Valley No. 1 Buckingham 7½' 40°15'06"N 75°01'15"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See Willard and others (1959) for geology.
676	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Rush Valley No. 2 Buckingham 7½' 40°15'38"N 75°01'45"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Some lightweight-aggregate potential. See Willard and others (1959) for geology, Hoover and others (1971) for analyses.
674	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Warrington Doylestown 7½' 40°15'39"N 75°08'09"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See Willard and others (1959) for geology, Hoover and others (1971) for analyses.
665	H & K Materials P. O. Box 196 Skippack, PA 19474 (610) 584-8500 (215) 297-8111	(610) 584-5059	quarry Colony Materials Lumberville 7½' 40°25'01"N 75°04'35"W	Lockatong argillite	coarse aggregate fine aggregate antiskid	See Willard and others (1959) for geology. Some potential for lightweight aggregate. See Hoover and others (1971) for analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
ARGILLITE AND HORNFELS (cont.)						
Bucks County (cont.)						
672	H & K Materials P. O. Box 196 Skippack, PA 19474 (610) 584-8500 (215) 822-2200	(610) 584-5059	quarry H & K Materials Doylestown 7½' 40°19'37"N 75°13'35"W	Lockatong argillite Brunswick sandstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See Willard and others (1959) for geology.
671	M & M Stone Company P. O. Box 189 Telford, PA 18969 (215) 723-1177 (215) 723-4395	(215) 723-0130	quarry Telford Telford 7½' 40°20'29"N 75°20'06"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B	Some possible Brunswick siltstone also being mined. See Willard and others (1959) for geology.
670	Naceville Materials 2001 Ridge Road Sellersville, PA 18960 (215) 453-8933		quarry Naceville Materials Telford 7½' 40°21'31"N 75°22'23"W	Lockatong-Brunswick argillite York Haven diabase	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid rip-rap	See Willard and others (1959) for geology.
Lancaster County						
546	H & K Materials P. O. Box 196 Skippack, PA 19474 (610) 584-8500 (717) 445-7430	(610) 584-5059	quarry Silver Hill Morgantown 7½' 40°11'14"N 75°58'34"W	Hammer Creek argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast	See Wood (1980) for geology.
Montgomery County						
689	Gill Quarries, Inc. P. O. Box 187 Fairview Village, PA 19409 (610) 279-2460	(610) 279-2490	quarry East Norriton Lansdale 7½' 40°10'15"N 75°21'00"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
ARGILLITE AND HORNFELS (cont.)						
Montgomery County (cont.)						
688	Gill Quarries, Inc. P. O. Box 187 Fairview Village, PA 19409 (610) 279-2460 (215) 646-1818	(610) 279-2490 (215) 646-3383	quarry Springhouse Ambler 7½' 40°13'13"N 75°13'46"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See Hoover and others (1971) for analysis.
685	Kibblehouse Quarries, Inc. 1750 Walton Road Blue Bell, PA 19422-0465 (610) 832-8000 (215) 234-4522	(610) 397-0700 (215) 234-0925	quarry Kibblehouse Perkiomenville 7½' 40°19'27"N 75°28'16"W	Brunswick hornfels	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	
686	M & M Stone Company P. O. Box 189 Telford, PA 18969 (215) 723-1177 (215) 256-8813	(215) 723-0130 (215) 256-9437	quarry Harleysville Perkiomenville 7½' 40°16'38"N 75°24'27"W	Lockatong argillite	approved coarse aggregate SRL H; type C approved fine aggregate type B	
687	Pottstown Trap Rock Quarries, Inc. 394 Sanatoga Road Pottstown, PA 19464 (610) 326-5921		quarry Sanatoga Phoenixville 7½' 40°14'04"N 75°35'32"W	Lockatong argillite	approved coarse aggregate SRL H, E; type C approved fine aggregate type B	
ASH						
Lackawanna County						
472	Rowker Coal Company 1100 Frieda Street Dickson City, PA 18519 (717) 489-7453		cinder bank Rowker Scranton 7½' 41°27'58"N 75°37'33"W	ash	crushed red cinders	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
DIABASE						
Berks County						
541	Dyer, John T., Quarry R. D. 3, Box 188 Birdsboro, PA 19508 (610) 582-6010 (610) 582-8775		quarry John T. Dyer Birdsboro 7½' 40°15'57"N 75°51'18"W	York Haven diabase	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast	Traditional source of high-quality railroad ballast. See Wood (1980) for geology.
543	Sheridan Corporation 1212 West Maple Street Lebanon, PA 17046 (610) 286-0471	(610) 286-0595	open pit Morgantown Morgantown 7½' 40°10'28"N 75°53'16"W	York Haven diabase	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast	Using waste rock from the former underground Grace Mine. May be crushing material from other formations in addition to York Haven Diabase.
Bucks County						
666	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (215) 536-0440	(610) 253-5734	quarry Rock Hill Quakertown 7½' 40°24'17"N 75°17'56"W	York Haven diabase	coarse aggregate fine aggregate antiskid railroad ballast	Traditional source of high-quality railroad ballast. Possible diabase dimension-stone potential in the area.
DOLOMITE						
Berks County						
530	Berks Products Corporation P. O. Box 421 Reading, PA 19603 (610) 374-5131 (610) 987-6291		quarry Ontelaunee Temple 7½' 40°25'42"N 75°56'48"W	Allentown dolomite	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	Mining the Maiden Creek Member of the Allentown Formation. For geology, see MacLachlan (1979). See National Stone Association (1991) for history.
525	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 683-7400	(610) 867-1886	quarry Eastern Kutztown Topton 7½' 40°30'42"N 75°43'33"W	Allentown dolomite	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid pulverized dolomite for agriculture	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			DOLOMITE (cont.)			
			Centre County			
237	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (814) 353-2352	(610) 253-5734	quarry Curtin Gap Mingoville 7½' 40°56'34"N 77°42'58"W	Nittany dolomite Bellefonte dolomite	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid	Selectively mining the Nittany and Bellefonte, which produce SRL G aggregate, and the Axcmann, which produces SRL M aggregate.
			Chester County			
565	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 647-4094	(215) 884-1465 (610) 251-0764	quarry Catanach Malvern 7½' 40°04'07"N 75°32'39"W	Ledger dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid fluxstone pulverized dolomite for agriculture high-magnesium dolomite	
			Dauphin County			
418	Handwerk Materials P.O. Box B Hummelstown, PA 17036 (717) 566-3002		quarry Swatara Middletown 7½' 40°14'55"N 76°44'00"W	Ontelaunee dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid rip-rap sand-mound sand clay	
			Fulton County			
267	Mellott, H.B., Estate, Inc. R. D. 1, Box 25 Warfordsburg, PA 17267 (717) 294-3281 (717) 485-5868	(717) 294-6878	quarry Big Cove Tannery Big Cove Tannery 7½' 39°50'39"N 78°02'03"W	Nittany dolomite Stonehenge, Larkc dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B	See Atlec (1990) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			DOLOMITE (cont.)			
			Lancaster County			
555	Compass Quarries, Inc. 47 McIlvaine Road Paradise, PA 17562 (717) 442-4191	(717) 442-8729	quarry Compass Gap 7½' 39°59'47"N 76°05'21"W	Vintage dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid pulverized dolomite for agriculture high-magnesium dolomite fillers and extenders	See Miller (1934), "Bellemont Quarries," for description and chemical analysis.
			Lebanon County			
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Ontelaunee dolomite Annville limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid railroad ballast fluxstone high-Ca limestone and high-Mg dolomite	Stripping Ontelaunee to mine Annville. See "Limestone." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.
			Montgomery County			
691	Corson Lime Company 500 Stenton Ave. Plymouth Meeting, PA 19462 (610) 828-4300 (800) 267-7661	(610) 828-5696	quarries Corson Lime Germantown 7½' 40°06'18"N 75°14'49"W	Ledger dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid metallurgical lime fluxstone for metal industry carbonate for agricultural lime	See "Lime." Produces high-magnesium dolomite. See O'Neill (1964) for analysis.
692	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 272-6090	(215) 884-1465 (610) 275-2228	quarry Ivy Rock Norristown 7½' 40°05'48"N 75°18'52"W	Ledger dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See O'Neill (1964) for chemical analysis, Miller (1934), "Lukens and Yerkes Quarry," for geologic description.
693	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 279-6840	(215) 884-1465 (610) 279-9286	quarry McCoy Norristown 7½' 40°05'44"N 75°20'12"W	Ledger dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid high-magnesium dolomite fluxstone pulverized dolomite for agriculture	See Miller (1934) for geologic description and chemical analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			DOLOMITE (cont.)			
			York County			
426	Baker Refractories P. O. Box 1189 York, PA 17405 (717) 848-1501 (717) 792-3683	(717) 848-2294 (717) 792-2309	quarry York dolomite West York 7½' 39°56'25"N 76°48'40"W	Ledger dolomite	construction aggregate refractory products pulverized dolomite for agriculture fillers dead-burned dolomite landfill clay	See Stose and Jonas (1939) for geology, Hopkins (1985a, b) for description, Ganis and Hopkins (1984b), Hopkins and Ganis (1990), and Taylor and Hopkins (1990) for geology and description. Less than 1 percent insoluble minerals (Ganis and Hopkins, 1995).
421	Codorus Stone and Supply Co., Inc. 135 Munbdis Race Road York, PA 17402 (717) 843-8074	(717) 854-2836	quarry Emigsville York Haven 7½' 40°01'18"N 76°42'58"W	Vintage dolomite	approved coarse aggregate SRL M; type C fine aggregate approved antiskid rip-rap	See Ganis and Hopkins (1995) for geology and history.
431	York Building Products Company, Inc. P. O. Box 1708 York, PA 17405 (717) 848-2831 (717) 792-3260	(717) 792-2606	quarry Lincoln Stone West York 7½' 39°55'12"N 76°51'41"W	Vintage dolomite	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid	For geology see Stose and Jonas (1939) and Ganis and Hopkins (1995). Also markets Ledger Dolomite.
			GNEISS AND RELATED ROCKS			
			Berks County			
534	Martin Stone Quarries, Inc. P. O. Box 297 Bechtelsville, PA 19505 (610) 367-2011		quarries Martin Stone Boyertown 7½' 40°21'37"N 75°37'46"W	"Pochuck" gneiss	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Selective mining. Clayey overburden marketed as landfill liner. See "Sandstone" and "Clay." See Buckwalter (1959) for geology and Pennsylvania Geological Survey (1984) for description.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			GNEISS AND RELATED ROCKS (cont.)			
			Chester County			
564	Devault Crushed Stone Company, Inc. P. O. Box 657 Devault, PA 19432 (610) 296-3906		quarry Devault Malvern 7½' 40°04'52"N 75°32'09"W	Precambrian granitic gneiss	approved coarse aggregate SRL H; type C approved fine aggregate type B antiskid railroad ballast	
			Delaware County			
696	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (610) 459-2492	(610) 253-5734 (610) 558-7800	quarry Glen Mills Media 7½' 39°55'10"N 75°29'09"W	Baltimore gneiss	approved coarse aggregate SRL H; type C approved fine aggregate type B antiskid rip-rap railroad ballast	See Parrott (1974) for geological description. Felsic to mafic gneiss and calcsilicates. See Atlee (1994) for history.
697	Pyramid Land Development Company 414 W. Knowlton Road Media, PA 19063 (610) 494-8627 (610) 494-4722		open pit Aston Media 7½' 39°52'38"N 75°25'30"W	Wissahickon schist	approved coarse aggregate SRL H; type C approved fine aggregate type B landscape boulders rip-rap borrow and general fill	Some serpentinite possible. Bedrock is mapped as oligoclase-mica schist.
			GRAVEL			
			Bradford County			
383	Bronson Construction Co., Inc. R. D. 3, Box 229 Troy, PA 16947 (717) 297-3486	(717) 297-3486	open pit Valley Bridge East Troy 7½' 41°45'39"N 76°42'04"W	Quaternary gravel	coarse aggregate topsoil	Mining Quaternary alluvium.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			GRAVEL (cont.)			
			Crawford County			
27	Berlin, Daniel E. R. D. 3, Brown Hill Road Cambridge Springs, PA 16403 (814) 398-2127		open pit Berlin Millers Station 7½' 41°47'22"N 79°57'04"W	Quaternary gravel	coarse aggregate	
30	Dehart, Robert R. D. 2, Box 317 Linesville, PA 16424 (814) 683-5663		open pit Dehart Linesville 7½' 41°43'02"N 80°28'21"W	Quaternary gravel	coarse aggregate	
25	Gingerich, Daniel E. R. D. 3, Box 190, Frisbeetown Road Union City, PA 16438		open pit Gingerich Millers Station 7½' 41°50'38"N 79°55'54"W	Quaternary gravel	coarse aggregate	
34	Oskin, David L. R. D. 2, Box 213 Linesville, PA 16424 (814) 683-4437		open pit Oskin Linesville 7½' 41°41'32"N 80°29'17"W	Quaternary gravel	coarse aggregate (bank-run) topsoil	
38	Thompson, William J. and Sue A. R. D. 2, Box 187 Linesville, PA 16424 (814) 683-4253		open pit Thompson Leon 7½' 41°40'33"N 80°30'20"W	Quaternary gravel	coarse aggregate (bank-run)	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
GRAVEL (cont.)						
Erie County						
23	Kovschak, James 13381 Edinboro Plank Road Waterford, PA 16441 (814) 796-6829		open pit Kovschak Cambridge Spr. NE 7½' 41°52'57"N 80°02'30"W	Quaternary gravel	coarse aggregate	Mapped as Kent ground moraine (Shepps and others, 1959).
3	Kress, Gilbert 12220 Raymond Mills Road North East, PA 16428 (814) 725-9496		open pit Kress Pit 1 North East 7½' 42°07'55"N 79°46'34"W	Quaternary gravel	coarse aggregate	
18	Munsee Sand and Gravel 927 West Smith Street Corry, PA 16407 (814) 664-4072	(814) 664-4072	open pit Munsee Corry 7½' 41°57'10"N 79°39'25"W	Quaternary gravel	coarse aggregate	
5	Pfadt, John F. 12612 Half Moon Road Wattsburg, PA 16442 (814) 739-2336		open pit Pfadt Wattsburg 7½' 42°03'00"N 79°49'59"W	Quaternary gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
Lawrence County						
90	Medure, A., Sand and Gravel Co., Inc. 438 Rear Line Avenue Ellwood City, PA 16117 (412) 758-7573		open pit Isabella New Castle South 7½' 40°55'02"N 80°21'32"W	Quaternary gravel	coarse aggregate	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	CONSTRUCTION AGGREGATE (cont.)					
	GRAVEL (cont.)					
	Lawrence County (cont.)					
75	Medure, A., Sand and Gravel Co., Inc. 438 Rear Line Avenue Ellwood City, PA 16117 (412) 758-7573		open pit Neely Harlansburg 7½' 41°04'52"N 80°07'38"W	Quaternary gravel	approved coarse aggregate type C approved fine aggregate type B approved antiskid	
	McKean County					
185	Carlson, G.L., Inc. P. O. Box 97 Turtlepoint, PA 16750 (814) 642-2350		open pit Carlson Gravel Port Allegany 7½' 41°52'01"N 78°21'11"W	Quaternary gravel	coarse aggregate	Probably mining alluvium.
	Mercer County					
51	Cline, J.J. 628 Hadley Road Greenville, PA 16125 (412) 588-0616		open pit Cline Hadley 7½' 41°24'49"N 80°13'16"W	Quaternary gravel	coarse aggregate	
58	McDowell, John H. 270 Hemlock Road Grove City, PA 16127 (814) 786-7886		open pit McDowell Grove City 7½' ~41°12'19"N ~80°02'54"W	Quaternary gravel	coarse aggregate	Producing crushed gravel and screened stone.
	Tioga County					
292	Deats, Donald, and Son Excavating R. D. 2, Box 935 Lawrenceville, PA 16929 (717) 827-2330		open pit Deats and Son Jackson Summit 7½' 41°57'33"N 77°06'03"W	Quaternary gravel	coarse aggregate	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			GRAVEL (cont.)			
			Venango County			
71	Adams, G. L., Excavating R. D. 1, Box 396-A Polk, PA 16342 (814) 432-2723	(814) 437-1354	open pit Adams Polk 7½' 41°19'30"N 79°58'03"W	Quaternary gravel	coarse aggregate	Producing bank-run and crushed gravel.
63	Tionesta Sand and Gravel, Inc. P. O. Box 307 Tionesta, PA 16353 (814) 755-3547 (814) 827-9184	(814) 755-2448	open pit Chapmanville Dempseytown 7½' 41°35'03"N 79°51'39"W	Quaternary gravel	coarse aggregate	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
68	Tionesta Sand and Gravel, Inc. P. O. Box 307 Tionesta, PA 16353 (814) 755-3547	(814) 755-2448	open pit Franklin Franklin 7½' 41°24'34"N 79°47'05"W	Quaternary gravel	approved coarse aggregate type C	Mining alluvium.
			Warren County			
128	Allen, John, Excavating, Inc. R. D. 1, Box 193 Sugar Grove, PA 16350 (814) 489-7830	(814) 489-3723	open pit Allen Excavating Sugar Grove 7½' 41°56'30"N 79°18'53"W	Quaternary gravel	coarse aggregate topsoil	Produces screened stone of various sizes, consisting of 85 percent local sandstone and 15 percent crystalline rocks.
126	Briggs, Gerry R. Box 223 Russell, PA 16345 (814) 757-8711		open pit Briggs Russell 7½' 41°56'42"N 79°08'26"W	Quaternary gravel	coarse aggregate	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				LIMESTONE		
				Adams County		
371	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 642-8535		quarry Fairfield Fairfield 7½' 39°47'36"N 77°21'23"W	Gettysburg limestone conglomerate Beekmantown Group limestone and dolomite	approved coarse aggregate SRL L; type C fine aggregate approved antiskid	Mining Mesozoic limestone fanglomerates and possibly underlying Beekmantown carbonates. See Stose and Baseom (1929) for geology.
				Armstrong County		
154	Bradys Bend Corporation 930 Cass Street New Castle, PA 16101 (412) 652-5566 (412) 526-3353		underground Kaylor No. 3 Chicora 7½' 40°59'42"N 79°38'31"W	Vanport limestone	approved coarse aggregate SRL L; type C	For a discussion of geology and operation, see Berkheiser and Smith (1990b). Miller (1934, p. 179) reports 93 to 96 percent CaCO3 and 1.0 to 2.0 MgCO3 for nine analyses of Vanport Limestone from Armstrong County.
160	Buffalo Limestone, Inc. R. D. 1, Box 55-C Kittanning, PA 16201 (412) 545-7478	(412) 543-4261	open pit Leroy Mine Mosgrove 7½' 40°47'25"N 79°26'14"W	Johnstown limestone Worthington sandstone	approved coarse aggregate SRL L; type C approved antiskid	Type A limestone and Type C sandstone screenings through R-5.
157	M & M Lime Company R. D. 1, Box 257-M Worthington, PA 16262 (412) 297-3958		underground M & M Lime Worthington 7½' 40°51'16"N 79°40'26"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B pulverized limestone for agriculture	See O'Neill (1974) for general geologic description.
161	Manor Minerals, Inc. 265 South Jefferson Street Kittanning, PA 16201 (412) 548-5195 (412) 543-3872		quarry Garretts Run Mosgrove 7½' 40°47'20"N 79°29'49"W	Vanport limestone	antiskid	Limestone is reported to be 16 to 18 feet thick.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				LIMESTONE (cont.)		
				Armstrong County (cont.)		
164	Manor Minerals, Inc. 265 South Jefferson Street Kittanning, PA 16201 (412) 548-5195 (412) 354-3770		quarry Girty Whitesburg 7½' 40°38'38"N 79°26'06"W	Vanport limestone	approved coarse aggregate SRL L; type C pulverized limestone for agriculture	A 9-foot section contains 94 percent CaCO3 and 0.8 MgCO3 (R.C. Smith, II, unpub. data, 1995). Berkheiser and Smith (1995) provide additional information about the Vanport limestone.
165	South Bend Limestone Corporation 200 Route 22 Delmont, PA 15626 (412) 468-8232 (412) 478-1493	(412) 468-8230 (412) 478-4607	open pit Coleman Whitesburg 7½' 40°38'16"N 79°24'50"W	Vanport limestone Allegheny Group sandstone	approved coarse aggregate SRL L; type C approved fine aggregate type B agricultural limestone	Also producing sandstone aggregate and fireclay. See "Sandstone" and "Clay."
				Bedford County		
227	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 652-5121	(814) 224-6800 (814) 224-6817	quarry Ashcom Clearville 7½' 39°59'51"N 78°25'31"W	Coburn-Loysburg limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid specialty fine grits carbonate for SO2 absorption coarse aggregate for concrete	Mining the Coburn through Loysburg interval. Selectively mining the Linden Hall and Snyder Fms. for high-calcium products. A composite of 93 feet yields 92 percent CaCO3 and 2.9 MgCO3 (R.C. Smith, II, unpub. data, 1995). See MacQueen (1993).
225	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 839-4850	(814) 224-6800 (814) 224-6805	quarry New Paris Schellsburg 7½' 40°07'02"N 78°37'53"W	Keyser-Tonoloway limestone	construction aggregate antiskid	A 17-foot section contains 77 percent CaCO3 and 8 MgCO3. The "Calico" horizon, which is much higher in CaCO3, may be present slightly deeper (R.C. Smith, II, unpub. data, 1995). See Berkheiser and Smith (1995). See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Berks County			
536	Allentown Cement Company, Inc. P. O. Box 199 Blandon, PA 19510-0199 (610) 926-1024 (610) 987-3332	(610) 926-1906 (610) 987-3399	quarry Oley No. 2 Birdsboro 7½' 40°21'36"N 75°46'02"W	Ontelaunee limestone Annville limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid limestone for cement manufacture	Aggregate is produced from the Ontelaunee Formation.
			Blair County			
203	Grannas Bros. Stone and Asphalt Co., Inc. P. O. Box 488 Hollidaysburg, PA 16648 (814) 695-5021		quarry Grannas Brothers Frankstown 7½' 40°26'53"N 78°21'23"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	Formation mined uncertain.
202	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 224-2121	(814) 224-6800 (814) 224-6805	quarry Canoe Creek Frankstown 7½' 40°29'06"N 78°17'48"W	Keyser-Tonoloway limestone	coarse aggregate fine aggregate antiskid	Probable high-calcium "calico" limestone beds (Miller, 1934, p. 238) at the base of the Keyser Formation. See Atlee (1989) for history.
			Bucks County			
668	New Hope Crushed Stone and Lime Co. P. O. Box 248 New Hope, PA 18938 (215) 862-5293	(215) 862-0669	quarry New Hope Stockton 7½' 40°22'44"N 74°58'46"W	Allentown limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	See Willard and others (1959) for geology, O'Neill (1964) for analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	CONSTRUCTION AGGREGATE (cont.)					
	LIMESTONE (cont.)					
	Butler County					
95	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 735-2088		quarry Harrisville Barkeyville 7½' 41°08'51"N 79°59'36"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid pulverized limestone for agriculture high-calcium limestone fluxstone	Also produces coal-mine rock dust. See O'Neill (1976) for analysis and thickness. See Pennsylvania Geological Survey (1986) for description of operation. See Snyder (1995) for history.
99	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 794-6911		quarry Slippery Rock Slippery Rock 7½' 41°02'48"N 80°03'27"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid pulverized limestone for agriculture high-calcium limestone fluxstone	See Pennsylvania Geological Survey (1986) for description of operation.
96	Quality Aggregates, Inc. P. O. Box 9347 Neville Island, PA 15225 (412) 777-6652		quarry Baker West Sunbury 7½' 41°07'16"N 79°53'55"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type A	
97	Quality Aggregates, Inc. P. O. Box 9347 Neville Island, PA 15225 (412) 777-6652		quarry Boyers West Sunbury 7½' 41°07'10"N 79°54'25"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type A	
106	Winfield Lime and Stone Co., Inc. 1295 Winfield Road Cabot, PA 16023 (412) 352-2640		underground Winfield Worthington 7½' 40°47'10"N 79°41'33"W	Vanport limestone	approved coarse aggregate SRL L approved antiskid pulverized limestone for agriculture	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Centre County			
242	Centre Lime and Stone Company, Inc. P. O. Box 5130 Pleasant Gap, PA 16823-5130 (814) 359-2773		quarry Brooks Mingoville 7½' 40°52'50"N 77°42'58"W	Nealmont limestone Linden Hall limestone	construction aggregate	The Valentine Member of the Linden Hall Formation is a source of high-calcium limestone.
243	Hawbaker, Glenn O., Inc. 325 West Aaron Drive State College, PA 16804 (814) 237-1444 (814) 359-3411	(814) 237-5348	quarry Whiterock Centre Hall 7½' 40°52'21"N 77°43'45"W	Nealmont limestone Salona limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	Aggregate is also produced from the Linden Hall, Snyder, and Hatter Formations. Valentine Member of the Linden Hall Formation is a source of high-calcium limestone.
236	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (814) 466-6216	(610) 253-5734	quarry Jacksonville Mingoville 7½' 40°59'14"N 77°38'38"W	Coburn-Loysburg limestone	coarse aggregate fine aggregate	Mining the Coburn through Loysburg Formations, undivided. Intermittent production.
245	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (814) 466-6216	(610) 253-5734	quarry Oak Hall State College 7½' 40°47'49"N 77°48'39"W	Salona-Snyder limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	A section of 212 feet contains 92 percent CaCO3 and 2.9 MgCO3 (R. C. Smith, II, unpub. data, 1995). Also see Berkheiser and Smith (1995). See Miller (1934, p. 288) for early operations.
			Clarion County			
148	Ancient Sun, Inc. P. O. Box 129 Shippenville, PA 16254 (814) 797-1203	(814) 797-1204	open pit Bowser Parker 7½' 41°03'15"N 79°38'57"W	Vanport limestone	construction aggregate	Not yet producing as of 1995.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Clinton County			
235	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251	(717) 524-7995	quarry Loganton Loganton 7½' 41°02'20"N 77°15'45"W	Benner-Loysburg limestone	coarse aggregate	
234	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 726-4511	(610) 253-5734	quarry Salona Mill Hall 7½' 41°05'18"N 77°27'54"W	Coburn-Loysburg limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	Mining Coburn through Loysburg Formations, undivided. See O'Neill (1964) for analysis. Rones (1969) included a discussion of the stratigraphy.
			Columbia County			
398	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 784-7043	(610) 253-5734	quarry Mausdale Danville 7½' 40°58'42"N 76°30'42"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid	Keyser and Tonoloway Formations are undivided. See O'Neill (1964), "Montour County, Mausdale quarry," for analysis.
			Cumberland County			
351	Hempt Brothers, Inc. 205 Creek Road Camp Hill, PA 17011 (717) 737-3411		quarry Camp Hill Lemoyne 7½' 40°13'13"N 76°54'24"W	St. Paul Group limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	Has some high-calcium and whiting potential (Berkheiser, 1983). See Root (1977) for geology.
352	Hempt Brothers, Inc. 205 Creek Road Camp Hill, PA 17011 (717) 737-3411 (717) 795-9000		quarry Locust Point Mechanicsburg 7½' 40°12'05"N 77°04'05"W	Rockdale Run limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	See Root (1978) for geology and chemical analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Cumberland County (cont.)			
348	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 766-7676	(717) 238-7312 (717) 796-1979	quarry Silver Spring Mechanicsburg 7½' 40°14'56"N 77°00'55"W	Chambersburg limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	See Root (1978) for geology.
362	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 532-2312		quarry Shippensburg Walnut Bottom 7½' 40°05'52"N 77°28'08"W	Stonehenge limestone Rockdale Run limestone and dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid pulverized limestone for agriculture	See O'Neill (1964) for analysis.
			Fayette County			
179	Commercial Stone Company, Inc. 2200 Springfield Pike Connellsville, PA 15425-9503 (412) 626-0800	(412) 626-8543	quarry Rich Hill Connellsville 7½' 40°02'37"N 79°30'52"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Blending underlying Burgoon with overlying Loyalhanna. See MacQueen (1995) for description of manufactured sand process. See "Sandstone."
180	Commercial Stone Company, Inc. 2200 Springfield Pike Connellsville, PA 15425-9503 (412) 626-0800	(412) 626-8543	underground Springfield Pike Connellsville 7½' 40°00'45"N 79°32'30"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid rip-rap	
181	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900 (412) 626-0400		quarry Connellsville Connellsville 7½' 40°00'43"N 79°32'29"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B antiskid railroad ballast	See O'Neill (1964) for analysis as "Connellsville Bluestone Company." Hickok and Moyer (1940) described the Loyalhanna limestone and quarries.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Fayette County (cont.)			
183	Marsolino Coolspring Quarry, Inc. P. O. Box 1328 Uniontown, PA 15401 (412) 437-8663 (412) 437-5200	(412) 438-8450 (412) 437-0449	quarry Coolspring Uniontown 7½' 39°53'56"N 79°38'49"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast sand for manufacturing rip-rap	See Miller (1934).
			Franklin County			
270	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (717) 349-2412	(814) 224-6800	quarry Dry Run Shade Gap 7½' 40°10'09"N 77°45'38"W	Chambersburg limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid coarse aggregate for concrete pulverized limestone for agriculture	See "Agricultural Minerals." See Nickelsen (1996) for structural features and geologic description. See Atlee (1989) for history.
279	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 264-4178		quarry Chambersburg Chambersburg 7½' 39°52'58"N 77°39'03"W	Stonehenge limestone Rockdale Run limestone and dolomite	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid	See O'Neill (1964) for chemical analysis. Also see Root (1971) for geology and partial chemical analyses. See Staff of Valley Quarries, Inc. (1993) for the company's view of its reclamation effort.
			Fulton County			
269	Mellott, H.B., Estate, Inc. R. D. 1, Box 25 Warfordsburg, PA 17267 (717) 294-3281 (717) 294-3333	(717) 294-6878	quarry Charlton Needmore 7½' 39°45'11"N 78°10'33"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	See Atlee (1990) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Huntingdon County			
261	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 627-1670	(814) 224-6800 (814) 627-1796	quarry McConnellstown Huntingdon 7½' 40°27'03"N 78°05'20"W	Keyser-Tonoloway limestone	approved coarse aggregate type C fine aggregate antiskid coarse aggregate for concrete	See Atlee (1989) for history.
			Juniata County			
326	Fulkroad, Jay, and Sons, Inc. R. D. 2, Box 125 McAlisterville, PA 17049 (717) 463-3701	(717) 463-3453	quarry Fulkroad and Sons Millerstown 7½' 40°37'28"N 77°14'57"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	See Faill and Wells (1974) for geology.
			Lancaster County			
547	Martin Limestone, Inc. P. O. Box 550 Blue Ball, PA 17506 (717) 354-1300 (717) 354-1340	(717) 354-1330 (717) 354-1368	quarry Burkholder Terre Hill 7½' 40°09'24"N 76°05'57"W	Ontelaunee limestone Annville limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Also producing from the Hershey and Meyerstown Formations.
			Lawrence County			
83	Atlantic States Limestone of Pennsylvania P. O. Box 33 Bessemer, PA 16112 (412) 667-8011		quarry Midland Bessemer 7½' 40°59'12"N 80°28'28"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B	See DeWolf (1929) for geology.
93	Medure, A., Sand and Gravel Co., Inc. 438 Rear Line Avenue Ellwood City, PA 16117 (412) 758-7573		quarry Wayne Township New Castle South 7½' 40°53'09"N 80°16'20"W	Vanport limestone	approved coarse aggregate SRL L approved fine aggregate type B	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Lawrence County (cont.)			
89	Medusa Aggregates Company P. O. Box 609 West Pittsburg, PA 16160 (412) 535-1200	(412) 535-1201	quarry West Pittsburg New Castle South 7½' 40°55'06"N 80°20'37"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B rip-rap pulverized limestone for agriculture	
86	Quality Aggregates, Inc. P. O. Box 9347 Neville Island, PA 15225 (412) 777-6652		quarry Princeton Portersville 7½' 40°57'28"N 80°11'44"W	Vanport limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B	
			Lebanon County			
524	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 867-4617	(717) 238-7312 (717) 867-3566	quarry Fontana Lebanon 7½' 40°16'06"N 76°28'43"W	Buffalo Springs limestone	approved coarse aggregate SRL L; type C fine aggregate approved antiskid	
			Lehigh County			
653	Coplay Aggregates, Inc. 5290 West Coplay Road Whitehall, PA 18052-2212 (610) 262-1855		quarry Coplay Whitehall Cementon 7½' 40°40'22"N 75°30'47"W	Jacksonburg limestone	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Coarse aggregate for roadway base.
657	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 262-5574	(610) 867-1886	quarry Whitehall Cementon 7½' 40°39'45"N 75°31'16"W	Jacksonburg limestone Epler dolomite	approved coarse aggregate SRL L; type C approved antiskid cement raw material	Includes argillaceous (shaly) limestone.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
LIMESTONE (cont.)						
Lycoming County						
303	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 584-2153	(610) 253-5734	quarry Lime Bluff Muncy 7½' 41°13'45"N 76°45'39"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	Keyser and Tonoloway Formations are undivided. See Faill (1979) for geology and analysis. Includes 29 ft. of 97 percent CaCO3 and 0.6 MgCO3.
305	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 745-7555	(610) 253-5734	quarry Pine Creek Linden 7½' 41°09'14"N 77°12'51"W	Coburn limestone Hatter limestone	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid high-calcium limestone	Includes 68 ft. containing 94 percent CaCO3 and 2.4 percent MgCO3 from the upper part of the Linden Hall Formation. See Faill and others (1977) for geology and analyses.
Mifflin County						
247	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 667-2015	(717) 524-7995	quarry Naginey Burnham 7½' 40°42'39"N 77°33'21"W	Coburn-Loysburg limestone Linden Hall limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid sand for septic systems carbonate for SO2 absorption agricultural lime	A roadcut in the area exposes 206 feet of section containing 92 percent CaCO3 and 2.4 MgCO3. Of this, 109 feet contains 95 percent CaCO3 and 2.2 MgCO3 (R.C. Smith, II, unpub. data, 1995).
Montour County						
399	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 437-2041	(610) 253-5734	quarry Milton Washingtonville 7½' 41°02'51"N 76°43'48"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid pulverized limestone for agriculture	Keyser and Tonoloway Formations are undivided. See Way (1993) for geology. Faill (1979) reports 99 feet contain 92 percent CaCO3, 2.1 MgCO3. This is likely in the base of the Keyser formation.
400	Royer's Lime Quarries R. D. 2, Box 420 Milton, PA 17847 (717) 437-2719		quarry Royer's Milton Washingtonville 7½' 41°02'29"N 76°42'36"W	Keyser-Tonoloway limestone	approved coarse aggregate type C approved antiskid	See Way (1993) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				LIMESTONE (cont.)		
				Northampton County		
645	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 258-2345	(610) 867-1886	quarry Martins Creek Bangor 7½' 40°46'54"N 75°09'52"W	Jacksonburg limestone Quaternary glacial gravel	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	See Kelly (1996) for a view of the company's reclamation effort.
				Northumberland County		
412	Meckley's Limestone Products, Inc. R. D. 1, Box 950 Herndon, PA 17830 (717) 758-3001	(717) 758-2400	quarry Mandata Pillow 7½' 40°40'28"N 76°50'06"W	Keyser limestone Tonoloway limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid pulverized limestone for agriculture fillers carbonate for SO2 absorption	See Faill and others (1973) and Hoskins (1976) for description, geology, and analyses. Operator custom blends and grinds. See Meckley (1996) for a perspective on the company's history.
				Perry County		
344	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511	(717) 238-7312	quarry Dromgold Shermans Dale 7½' 40°20'58"N 77°13'26"W	Keyser limestone	approved coarse aggregate type C fine aggregate approved antiskid	Intermittent production. See Dyson (1967) for geology.
				Snyder County		
324	National Limestone Quarry, Inc. P. O. Box 397 Middleburg, PA 17842 (717) 837-1635		quarry Mt. Pleasant Mills Richfield 7½' 40°43'03"N 77°01'24"W	Keyser limestone Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B pulverized limestone for agriculture poultry grit	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Snyder County (cont.)			
321	National Limestone Quarry, Inc. P. O. Box 397 Middleburg, PA 17842 (717) 837-1635		quarry Paxtonville Middleburg 7½' 40°46'01"N 77°07'10"W	Keyser limestone Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate types A, B approved antiskid pulverized limestone for agriculture fillers for fertilizer	See O'Neill (1964) for analysis.
			Somerset County			
223	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562 (814) 662-2711	(814) 662-2712	quarry Eichorn Grantsville 7½' 39°44'40"N 79°12'21"W	Deer Valley limestone Loyalhanna quartzose limestone	coarse aggregate pulverized limestone for agriculture	Mining the Deer Valley for agricultural limestone and the Loyalhanna for aggregate. A 7-foot section of Deer Valley contains 83 percent CaCO3 and 1.0 MgCO3 (R.C. Smith, II, unpub. data, 1995). Also see Brezinski (1993a) and Berkheiser and Smith (1995).
220	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562 (814) 662-2711	(814) 662-2712	quarry Galley Markleton 7½' 39°45'33"N 79°12'24"W	Loyalhanna quartzose limestone Burgoon sandstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Selective mining of 3 units, Loyalhanna (SRL H), Deer Valley (SRL L), and Burgoon (SRL E). See Flint (1965) and Edmonds (1993) for geology.
217	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 443-9950	(814) 224-6800 (814) 445-2918	quarry Bakersville Seven Springs 7½' 40°03'57"N 79°15'18"W	Loyalhanna quartzose limestone Burgoon sandstone	approved coarse aggregate SRL H; type C approved fine aggregate type B antiskid coarse aggregate for concrete rip-rap	Selectively mining the Loyalhanna limestone and Burgoon sandstone. See Atlee (1989) for history. See "Sandstone."
211	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 754-4921	(814) 224-6800 (814) 754-5916	quarry Ogletown Ogletown 7½' 40°14'18"N 78°41'18"W	Loyalhanna quartzose limestone Mauch Chunk sandstone	coarse aggregate fine aggregate antiskid	See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE (cont.)			
			Union County			
311	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 523-6880	(717) 524-7995	quarry Lewisburg Lewisburg 7½' 40°58'21"N 76°56'23"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid carbonate for SO_2 absorption	
313	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251	(717) 524-7995	quarry Winfield Northumberland 7½' 40°54'12"N 76°52'00"W	Keyser-Tonoloway limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid carbonate for SO_2 absorption sand for septic systems agricultural lime	Early traditional source of lime in central Pennsylvania.
314	Iddings Quarry, Inc. 900 Chestnut Street Mifflinburg, PA 17844 (717) 966-1551		quarry Iddings Mifflinburg 7½' 40°54'08"N 77°04'59"W	Keyser-Tonoloway limestone	approved coarse aggregate type C	Mapped as Keyser and Tonoloway Formations, undivided.
			Westmoreland County			
176	Commercial Stone Company, Inc. 2200 Springfield Pike Connellsville, PA 15425-9503 (412) 626-0800 (412) 929-5400	(412) 626-8543	quarry Belle Vernon Donora 7½' 40°07'58"N 79°50'05"W	Monongahela Group limestone	coarse aggregate fine aggregate antiskid	Reported to be mining the Benwood Limestone. Miller (1934) reported 85 percent $CaCO_3$ and 6.5 $MgCO_3$ along strike in Greene County. Also see Berkheiser and Smith (1995).
171	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900 (412) 459-6031		quarry Torrance Bolivar 7½' 40°24'19"N 79°12'56"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast gabion stone rip-rap	See Miller (1934) and Stone (1932). See Follador and others (1995) for geology and analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
LIMESTONE (cont.)						
Westmoreland County (cont.)						
173	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900		quarry Whitney Mammoth 7½' 40°13'27"N 79°22'45"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast	See Shaffner (1963) for geology. Operation is at least partially underground.
172	Latrobe Construction Company P. O. Box 150 Latrobe, PA 15650 (412) 537-5566	(412) 537-7980	underground Longbridge Derry 7½' 40°16'33"N 79°18'00"W	Loyalhanna quartzose limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid rip-rap	See Miller (1934) for description and analysis of Longbridge quarries.
York County						
427	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Consolidated West York 7½' 39°56'16"N 76°47'35"W	Kinzers limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid fillers agricultural lime poultry grit	Also producing landfill covers, landfill liners, and backfill. See "Shale." See Ganis and Hopkins (1984a, 1990a, 1990b, 1995) and Hopkins and Ganis (1990) for geology and descriptions.
429	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Ensminger West York 7½' 39°56'14"N 76°47'20"W	Kinzers limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid fillers agricultural lime poultry grit	Also producing landfill covers, landfill liners, and backfill. See "Shale." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.
428	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Williams West York 7½' 39°56'15"N 76°46'58"W	Kinzers limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid fillers agricultural lime poultry grit	Also producing landfill covers, landfill liners, and backfill. See "Shale." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE AND DOLOMITE			
			Adams County			
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Kinzers limestone Ledger dolomite	approved coarse aggregate SRL M; type C approved fine aggregate type A, B approved antiskid high-Ca limestone and high-Mg dolomite pulverized carbonate for agriculture railroad ballast	Selectively mining in a geologically complex setting. See "Limestone" and "Dolomite." See Berkheiser (1983) and Hole (1968) for analyses.
			Berks County			
526	Berks Products Corporation P. O. Box 421 Reading, PA 19603 (610) 374-5131 (610) 683-3302		quarry Kutztown Fleetwood 7½' 40°29'48"N 75°46'51"W	Stonehenge dolomite and limestone	approved coarse aggregate SRL M; type C approved antiskid	Could also be mining the Allentown and Rickenbach Fms. See MacLachlan (1979) for geology, O'Neill (1964) for analysis as "Eastern Lime." See National Stone Association (1991) for history.
539	Breneman, E. J., Inc. P. O. Box 2126 Sinking Spring, PA 19608 (610) 678-1913	(610) 678-9691	quarry Breneman Sinking Spring 7½' 40°20'39"N 76°00'36"W	Epler limestone and dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	See MacLachlan and others (1975) for geology, O'Neill (1964) for analysis. See National Stone Association (1992) for history.
538	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 689-9551	(610) 867-1886	quarry Oley Birdsboro 7½' 40°21'20"N 75°48'02"W	Annville limestone Ontelaunee dolomite and limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid high-calcium limestone cement raw materials	See MacLachlan (1983) and Smith (1977) for geology, and O'Neill (1964) for analysis.
			Blair County			
208	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 224-2121	(814) 224-6800 (814) 224-6805	quarry Roaring Spring Roaring Spring 7½' 40°20'46"N 78°23'55"W	Coburn-Axemann limestone Bellefonte dolomite	approved coarse aggregate SRL G; type C approved fine aggregate types A, B approved antiskid railroad ballast carbonate for SO2 absorption rip-rap	Mining the entire Coburn through Axemann interval. See Remick (1991) for SO2 sorbent application. See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				LIMESTONE AND DOLOMITE (cont.)		
				Blair County (cont.)		
201	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone Bellefonte dolomite	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid carbonate for SO2 absorption coal-mine rock dust	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.
				Chester County		
566	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (610) 269-1710	(610) 253-5734 (610) 873-2382	quarry Downingtown Downingtown 7½' 40°00'45"N 75°40'10"W	Ledger dolomite Conestoga limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid rip-rap	Also mining Zooks Corner Dolomite and Henderson Marble. For analysis, see O'Neill (1964, p. 19). For geology, see MacLachlan (1994).
				Cumberland County		
354	Union Quarries, Inc. P. O. Box 686 Carlisle, PA 17013 (717) 249-5012		quarry Bonny Brook Carlisle 7½' 40°10'44"N 77°10'58"W	Zullinger limestone and dolomite	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	See Root (1978) for geology.
				Dauphin County		
419	Hempt Brothers, Inc. 205 Creek Road Camp Hill, PA 17011 (717) 737-3411 (717) 939-9586		quarry Steelton Steelton 7½' 40°13'21"N 76°48'54"W	Epler limestone and dolomite	approved coarse aggregate SRL L; type C approved fine aggregate types A, B approved antiskid	See O'Neill (1964) for chemical analysis. Operator is also mining a nearby slag dump (see "Slag").
417	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 566-0222	(717) 238-7312 (717) 566-7527	quarry Hummelstown Hershey 7½' 40°16'26"N 76°42'11"W	Ontelaunee dolomite and limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	Some minor Epler and Annville on property.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE AND DOLOMITE (cont.)			
			Huntingdon County			
264	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 447-3295	(814) 224-6800	quarry Orbisonia Shade Gap 7½' 40°13'31"N 77°52'01"W	Coburn-Loysburg limestone Bellefonte dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid rip-rap coarse aggregate for concrete	Mining the entire Coburn through Loysburg interval. Also mining Bellefonte Dolomite. See Atlee (1989) for history.
256	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone Bellefonte dolomite	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid carbonate for SO2 absorption coal-mine rock dust high-calcium limestone	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.
258	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-3180	(814) 224-6800 (814) 684-2985	quarry Union Furnace Spruce Creek 7½' 40°37'05"N 78°09'46"W	Coburn-Loysburg limestone Bellefonte dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid rip-rap railroad ballast	Mining the Coburn through Loysburg interval. Nearby roadcut includes 211 feet of section containing 93 percent CaCO3 and 2.8 MgCO3 (R.C. Smith, II, unpub. data, 1995). See Rones (1969) for description of nearby section. See Atlee (1989) for history.
			Lancaster County			
551	Binkley and Ober, Inc. P. O. Box 7 East Petersburg, PA 17520 (717) 569-0441	(717) 569-5066	quarry Binkley and Ober Lancaster 7½' 40°06'34"N 76°21'24"W	Buffalo Springs limestone and dolomite	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid	See O'Neill (1964) for chemical analysis, Miller (1934) for geologic description.
544	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932	(610) 867-1886	quarry Schoeneck Ephrata 7½' 40°14'15"N 76°10'46"W	Myerstown limestone Ontelaunee dolomite	approved coarse aggregate SRL L; type C pulverized carbonate for agriculture cement raw material high-calcium limestone fluxstone acid neutralization	Selectively mining the Myerstown and Ontelaunee for construction materials and the Annville for high-calcium products. See Berkheiser (1983) for analysis.

CONSTRUCTION AGGREGATE (cont.)

LIMESTONE AND DOLOMITE (cont.)

Lancaster County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
553	Eshelman, J. Miller, and Son, Inc. P. O. Box 295 Landisville, PA 17538 (717) 898-2277		quarry Eshelman Columbia East 7½' 40°05'18"N 76°26'55"W	Snitz Creek dolomite Buffalo Springs limestone	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	See O'Neill (1964) for analysis and Wise and others (1968) for geology and description.
545	Kurtz, A.G., and Sons, Inc. 74 Kurtz Road Denver, PA 17517 (717) 336-7591	(717) 336-3651	quarry A.G. Kurtz and Sons Terre Hill 7½' 40°13'26"N 76°07'17"W	Epler limestone and dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	
548	Martin Limestone, Inc. P. O. Box 550 Blue Ball, PA 17506 (717) 354-1300 (717) 354-1370	(717) 354-1330 (717) 354-1397	quarry Weaverland Terre Hill 7½' 40°08'15"N 76°03'26"W	Buffalo Springs limestone and dolomite Stonehenge limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid pulverized carbonate for agriculture	See O'Neill and others (1965) for chemical analysis.
549	Rohrer's Quarry, Inc. P. O. Box 365 Lititz, PA 17543-0365 (717) 626-9760		quarry Rohrer's Lititz 7½' 40°07'57"N 76°20'06"W	Epler limestone and dolomite	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid pulverized carbonate for agriculture carbonate for SO2 absorption	See O'Neill (1964) for analysis.
552	Stoltzfus, D.M., and Son, Inc. P. O. Box 84 Talmage, PA 17580-0084 (717) 656-2411		quarry Talmage Leola 7½' 40°06'06"N 76°14'05"W	Zooks Corner dolomite and limestone	approved coarse aggregate SRL G; type C approved fine aggregate type B approved antiskid	The Zooks Corner Formation is approximately equal to the Elbrook Formation. See O'Neill (1964) for analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
LIMESTONE AND DOLOMITE (cont.)						
Lancaster County (cont.)						
550	Union Quarries, Inc. P. O. Box 686 Carlisle, PA 17013 (717) 249-5012 (717) 367-1080		quarry Rheems Elizabethtown 7½' 40°07'48"N 76°34'45"W	Epler dolomitic limestone	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid	See Bricker and others (1960) and Faill (1983) for geology and structural setting.
Lebanon County						
521	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 534-1606	(717) 238-7312 (717) 274-2332	quarry Prescott Richland 7½' 40°21'19"N 76°21'28"W	Annville limestone Ontelaunee dolomite	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid	Also producing limestone for chemicals, metallurgy, and other industrial applications.
Lehigh County						
659	ABE Materials 4300 Huckleberry Road Allentown, PA 18104 (610) 395-2571		quarry ABE-Allentown Allentown West 7½' 40°37'22"N 75°34'14"W	Beekmantown Group limestone and dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid rip-rap sand-mound sand clay	
656	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 799-2421	(610) 867-1886	quarry Ormrod Cementon 7½' 40°39'58"N 75°32'56"W	Epler dolomite and limestone	approved coarse aggregate SRL M approved fine aggregate type B approved antiskid	
Lycoming County						
306	P Stone, Inc. P. O. Box 254 Jersey Shore, PA 17740 (717) 745-7144 (717) 745-7166		quarry P Stone Linden 7½' 41°08'27"N 77°13'54"W	Loysburg limestone and dolomite	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid rip-rap railroad ballast	Also marketing residual clay for borrow and general fill. See Faill and others (1977) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			LIMESTONE AND DOLOMITE (cont.)			
			Monroe County			
628	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 992-4951	(610) 253-5734	quarry Bossardville Saylorsburg 7½' 40°55'30"N 75°16'06"W	Decker calcareous sandstone Poxono Island limestone and dolomite	approved coarse aggregate SRL H, L; type C approved fine aggregate type B approved antiskid	Mining the Decker through Poxono Island Formations, undivided. Selective mining for aggregate, Bossardville limestone for SRL L, and Decker for SRL H.
			Northampton County			
646	ABE Materials 211 Lower Mud Run Road Easton, PA 18042 (610) 250-7700		quarry ABE-Easton Bangor 7½' 40°45'54"N 75°11'22"W	Jacksonburg limestone Epler dolomite	approved coarse aggregate SRL L; type C approved fine aggregate type B approved antiskid rip-rap sand-mound sand clay	
649	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 759-3334	(610) 867-1886	quarry Nazareth Nazareth 7½' 40°44'02"N 75°17'26"W	Epler dolomite and limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	
650	Keystone Cement Company 7311 Airport Road Bath, PA 18014-0058 (610) 837-1881		quarry Keystone Cement Catasauqua 7½' 40°42'56"N 75°24'04"W	Ontelaunee limestone and dolomite	approved coarse aggregate SRL H approved fine aggregate type B approved antiskid	Operating two quarries. See "Cement Raw Materials."
			Schuylkill County			
514	Huss Contracting Company P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559 (717) 386-4193	(717) 668-5910	quarry Andreas New Tripoli 7½' 40°44'28"N 75°47'34"W	Bossardville limestone Poxono Island dolomitic limestone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid railroad ballast	See Lash and others (1984) for description and geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			METABASALT			
			Adams County			
372	ISP Minerals, Inc. 1455 Old Waynesboro Road Blue Ridge Summit, PA 17214 (717) 794-2184	(717) 794-5248	quarry Charmian Iron Springs 7½' 39°45'28"N 77°27'32"W	Catoctin metabasalt	construction aggregate rip-rap roofing granules tennis-court material fill	See Fauth (1978) for geology, Smith and Barnes (1994) for general chemistry, and Berkheiser and Smith (1990a) for general description.
			SAND AND GRAVEL			
			Adams County			
369	Clapsaddle, Wilson, Sand Quarry 1790 Baltimore Pike Gettysburg, PA 17325 (717) 334-1344		open pit Clapsaddle Gettysburg 7½' 39°48'23"N 77°12'08"W	Quaternary sand	fine aggregate borrow and general fill topsoil	Mining weathered residuum from the York Haven Diabase. See Wood (1980) for geology.
			Allegheny County			
120	Lafarge Construction Materials 6715 Tippecanoe Road, Bldg. C Canfield, OH 44406 (216) 533-3338 (412) 264-2200	(216) 533-0922 (412) 264-2050	dredge Thaddus Carr Ambridge 7½' 40°31'23"N 80°09'56"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A	Plant at 819 Pennsylvania Ave., Coraopolis, PA 15108. Dredge works in the Ohio River from Pittsburgh to the West Virginia border.
119	Lane Construction 555 North Bell Avenue Carnegie, PA 15106 (412) 279-1200 (412) 274-0777	(412) 279-5184 (412) 274-4625	dredge Springdale Plant New Kensington 7½' 40°32'16"N 79°46'23"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type B approved antiskid	Dredging Allegheny River pools 2, 3, 4, and 5. Location is that of plant. Using unique hydraulic shovel dredge.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Armstrong County			
163	Allegheny Metals and Minerals, Inc. P. O. Box 13566 Pittsburgh, PA 15243 (412) 344-9900 (412) 842-0281	(412) 344-9909	open pit Godfrey Leechburg 7½' 40°41'26"N 79°37'30"W	Quaternary sand	bank sand	Mining on the floodplain of the Allegheny River. Glacial outwash (valley train).
158	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900 (412) 548-5880		dredge Tarrtown plant Kittanning 7½' ~40°51'15"N ~79°30'11"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Plant processes glacial outwash dredged from Allegheny River pool 7.
156	Glacial Sand and Gravel Company P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 548-7121		dredge Bridgeburg plant Mosgrove 7½' 40°52'00"N 79°29'24"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type A approved antiskid roofing material	Dredging Allegheny River pool 7. Mapped as outwash valley trains and alluvium (Shepps and others, 1959).
155	Glacial Sand and Gravel Company P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 548-2522		open pit Tarrtown Mosgrove 7½' 40°52'02"N 79°29'19"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid roofing material	Mining two sites, Tarrtown Flat and Tarrtown Hill. Mapped as outwash valley trains and alluvium (Shepps and others, 1959).
153	Parker Sand and Gravel Company Drawer O Parker, PA 16049 (412) 399-2727		open pit Parker Sand and Gravel Parker 7½' 41°06'43"N 79°41'22"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type A antiskid	Probably undifferentiated outwash river-terrace and lake deposits.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Beaver County			
109	Darlington Ready Mix Company P. O. Box 510 Darlington, PA 16115 (412) 336-6795 (412) 827-2979	(412) 336-2354	open pit Mott No. 4 New Galilee 7½' 40°49'16"N 80°24'15"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
107	GB Sand Company, Inc. 1050 Frew Mill Road New Castle, PA 16101 (412) 658-9883		open pit Dodds' New Galilee 7½' 40°50'30"N 80°22'32"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Dry screened. Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
			Berks County			
540	Process Recovery Corporation 2909 Windmill Road Sinking Springs, PA 19608 (610) 670-8500 (610) 373-3323	(610) 670-8507 (610) 373-6787	landfill PRC Residual Waste Reading 7½' 40°18'12"N 75°54'10"W	sand	approved fine aggregate type B	Sand is obtained from nonhazardous foundry waste, which is screened to remove metallics and sized to produce fine aggregate.
			Bradford County			
379	Cook, Ralph M., Sand and Gravel R. D. 2, Box 140 Wysox, PA 18854 (717) 265-8014		open pit Cook Towanda 7½' 41°47'29"N 76°23'02"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Glacial outwash and possible kame material on the floodplain of Wysox Creek.
373	Dalrymple Gravel and Contracting Co., Inc. 2105 South Broadway Pine City, NY 14871 (607) 737-6200		open pit Chemung Sayre 7½' 41°59'58"N 76°36'39"W	Quaternary sand and gravel	approved coarse aggregate SRL H approved fine aggregate type A approved antiskid	Mining glacial outwash on the floodplain of the Chemung River.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Bradford County (cont.)			
376	Hill, Carl, Construction, Inc. R. D. 1 Ulster, PA 18850 (717) 358-3232		open pit Carl Hill Construction Towanda 7½' 41°48'21"N 76°28'26"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Appears to be an outwash terrace of the Susquehanna River.
386	Pelton, Stephen J. R. D. 1, Box 228 Monroeton, PA 18832 (717) 364-5763	(717) 364-5324	open pit Pelton Powell 7½' 41°41'50"N 76°37'11"W	Quaternary sand and gravel	coarse aggregate (gravel)	Mining a kame deposit.
375	Root, Charles T. R. D. 2, Box 963 Gillett, PA 16925 (717) 596-2707		open pit Mosherville Millerton 7½' 41°58'50"N 76°54'12"W	Quaternary sand and gravel	gravel (screened) sand for septic systems	
374	Simonds, Tom, and Son Excavating R. D. 1, Box 50-B Sayre, PA 18840 (717) 888-3396	(717) 888-0030	open pit Simonds and Son Litchfield 7½' 41°59'44"N 76°29'09"W	Quaternary sand and gravel	coarse aggregate fine aggregate topsoil	Mining alluvium. Business straddles state line; pit is in New York, only access is from Pennsylvania.
384	State Aggregates, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18431 (610) 866-0932		open pit Towanda Towanda 7½' 41°45'19"N 76°25'38"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Mining floodplain of the Susquehanna River, probably composed of glacial outwash and alluvium.

Map No.	Name and Address	Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)							
SAND AND GRAVEL (cont.)							
Bradford County (cont.)							
378	Storch, Robert L. R. D. 3, Box 123 Troy, PA 16947	(717) 297-3176		open pit Storch Troy 7½' 41°47'33"N 76°46'35"W	Quaternary sand and gravel	coarse aggregate	Appears to be an outwash terrace deposit associated with the North Branch of Sugar Creek.
387	Wyoming Sand and Stone Company R. D. 2, Box 100 Tunkhannock, PA 18657	(717) 836-2117 (717) 746-1250	(717) 836-6317	open pit Wyalusing Wyalusing 7½' 41°39'12"N 76°15'10"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate types A, C approved antiskid	
381	Wysox Sand and Gravel, Inc. P. O. Box 128 Wysox, PA 18854	(717) 265-6760	(717) 265-7461	open pit Asylum Twp. Towanda 7½' 41°46'24"N 76°23'44"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type A approved antiskid	Mining floodplain of Susquehanna River, composed of glacial outwash and alluvium.
Bucks County							
660	Delaware Valley Landscape Stone, Inc. Route 32 Lumberville, PA 18933	(215) 297-8133 (215) 982-5126		open pit Delaware Valley Frenchtown 7½' 40°32'35"N 75°04'34"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mining alluvium on the Delaware River floodplain, composed of alluvium and stratified drift. See Drake and others (1961) for geology.
679	Sahara Sand of Falls, Inc. 355 Newbold Road Fairless Hills, PA 19030	(215) 295-0777	(215) 295-0630	dredge Sahara Sand Trenton West 7½' 40°11'23"N 74°47'52"W	Trenton gravel Quaternary sand and gravel	approved coarse aggregate SRL H approved fine aggregate type A approved antiskid	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Bucks County (cont.)			
680	Warner Company P. O. Box 457 Devault, PA 19432 (610) 644-7100 (215) 295-7193	 (215) 295-7198	dredge North Side Plant Trenton West 7½' 40°11'08"N 74°46'16"W	Trenton sand and gravel	approved coarse aggregate SRL H approved fine aggregate types A, C clay	Also recycling concrete, brick, and blocks.
682	Warner Company P. O. Box 457 Devault, PA 19432 (610) 644-7100		dredge West Side Plant Trenton West 7½' 40°10'00"N 74°48'27"W	Trenton sand and gravel	approved coarse aggregate SRL E approved fine aggregate types A, C approved antiskid clay	Warner is also recycling concrete, brick, and blocks.
			Butler County			
103	Cooper Brothers, Inc. R. D. 2, Box 39 Slippery Rock, PA 16057 (412) 794-4451		open pits Slippery Rock No. 1 Slippery Rock 7½' 41°03'03"N 80°05'25"W	Quaternary sand and gravel	coarse aggregate fine aggregate concrete-block aggregate	Mapped as Illinoian ground moraine(?), Wisconsinan Kent end moraine and ground moraine (Shepps and others, 1959).
101	Cooper Brothers, Inc. R. D. 2, Box 39 Slippery Rock, PA 16057 (412) 794-4451		open pit Slippery Rock No. 2 Slippery Rock 7½' 41°04'26"N 80°03'27"W	Quaternary sand and gravel	coarse aggregate fine aggregate concrete-block aggregate	Mapped as Illinoian ground moraine(?), Wisconsinan Kent end moraine and ground moraine (Shepps and others, 1959).
102	Cooper, H.W., Builders Supply, Inc. R. D. 2, Box 39 Slippery Rock, PA 16057 (412) 794-4451		open pit Worth Township Slippery Rock 7½' 41°00'46"N 80°04'34"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate type A	Mapped as kames, kame terraces, and eskers, undifferentiated (Shepps and others, 1959). Also has approved fine aggregate at Redmond Pit.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Butler County (cont.)			
100	Elliott, William M. 107 Poplar Forest Drive Slippery Rock, PA 16057 (412) 794-4735		open pit Elliot Pit No. 1 Harlansburg 7½' ~41°02'04"N ~80°07'50"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mining Quaternary alluvium.
98	Parker Sand and Gravel Company Drawer O Parker, PA 16049 (412) 399-2727		open pit Parker Sand and Gravel Parker 7½' 41°06'43"N 79°41'22"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type A antiskid	Probably undifferentiated outwash river-terrace and lake deposits.
104	Rose Point Sand and Gravel R. D. 4, Box 496 New Castle, PA 16101 (412) 654-2435	(412) 654-2435	open pit Cooper mine Portersville 7½' 40°58'39"N 80°09'57"W	Quaternary sand and gravel	construction aggregate	Mining alluvium.
			Clarion County			
147	Glacial Sand and Gravel Company P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101		open pits Parker plant Parker 7½' 41°04'15"N 79°39'21"W	Quaternary sand and gravel	coarse aggregate antiskid	Mining outwash and alluvium associated with the Allegheny River. Possible intermittent production from two pits.
			Clearfield County			
189	North Star Aggregates, Inc. P. O. Box R Ridgway, PA 15853 (814) 637-5599	(814) 637-5598	open pit Penfield Penfield 7½' 41°12'58"N 78°33'50"W	Quaternary sand and gravel	coarse aggregate aggregate (bank run) sand products topsoil borrow and general fill	Mining Quaternary alluvium.

Map No.	Name and Address	Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)			
				SAND AND GRAVEL (cont.)			
				Columbia County			
396	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044	(610) 253-4271 (717) 784-1640	(610) 253-5734	open pit Bloomsburg Bloomsburg 7½' 41°01'44"N 76°26'22"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate types A, C approved antiskid	Apparently mining Olean outwash. For geology, see Inners (1981).
393	Zeisloft Construction Company P. O. Box 338 Bloomsburg, PA 17815	(717) 784-6578		open pit Zeisloft Bloomsburg 7½' 41°04'32"N 76°25'43"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mining alluvium.
				Crawford County			
35	Barnhart, Sam H., and Son R. D. 1, Box 45-B Titusville, PA 16354	(814) 827-6031		open pit Reynolds bank Titusville North 7½' 41°41'23"N 79°43'42"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run) crushed bank-run oversize stone	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
26	Bechtel, James B., Excavating P. O. Box 44 Conneautville, PA 16406	(814) 587-2601		open pit Bechtel Conneautville 7½' 41°47'30"N 80°17'48"W	Quaternary sand and gravel	construction aggregate borrow and general fill	Mapped as Lavery Till by Shepps and others (1959).
43	Conneaut Lake Sand and Gravel, Inc. P. O. Box 529 West Middlesex, PA 16159	(412) 528-1204 (814) 382-5345		open pit Conneaut Lake Conneaut Lake 7½' 41°37'00"N 80°16'35"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate types A, B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Crawford County (cont.)			
40	Cornell, Edward R. D. 4, Box 50 Linesville, PA 16424 (814) 683-5871		open pit Cornell Linesville 7½' 41°39'14"N 80°24'16"W	Quaternary sand and gravel	coarse aggregate fine aggregate borrow and general fill	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
47	Dunn, W.L., Construction Company 180 North Franklin Street Cochranton, PA 16314 (814) 425-7429 (814) 425-3160		open pit Cutshall Cochranton 7½' 41°32'24"N 80°05'19"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate types A, B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
42	Foust, Virgil R. D. 2, Box 281 Conneaut Lake, PA 16316 (814) 382-4734		open pit Foust Conneaut Lake 7½' 41°37'22"N 80°16'36"W	Quaternary sand and gravel	coarse aggregate (crushed)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
41	Hasbrouck Sand and Gravel, Inc. R. D. 4, Box 41 Titusville, PA 16354 (814) 827-1721		open pit Hasbrouck Titusville North 7½' 41°38'44"N 79°43'23"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type A approved antiskid	Mapped as outwash river terraces and lake deposits, undifferentiated (Shepps and others, 1959).
45	Lakeland Sand and Gravel, Inc. P. O. Box 137 Hartstown, PA 16131 (814) 382-8178		open pit Lakeland Conneaut Lake 7½' 41°33'22"N 80°20'30"W	Quaternary sand and gravel	approved coarse aggregate types B, C approved fine aggregate type A approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Crawford County (cont.)			
29	McMahon, David L. and Sandra R. D. 1, Box 94 Cambridge Springs, PA 16403 (814) 398-8472		open pit Blooming Valley 7½' 41°44'46"N 80°03'18"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as Kent ground moraine (Shepps and others, 1959).
46	Meadville Redi-Mix Concrete, Inc. P. O. Box 418 Meadville, PA 16335 (814) 724-7777		open pit No. 1 Cochranton 7½' 41°32'39"N 80°05'25"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type A approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
48	Meadville Redi-Mix Concrete, Inc. P. O. Box 418 Meadville, PA 16335 (814) 724-7777		open pit No. 2 Cochranton 7½' 41°32'01"N 80°04'38"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type A approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
32	Meadville Redi-Mix Concrete, Inc. P. O. Box 418 Meadville, PA 16335 (814) 724-7777		open pit Woodcock Twp. Blooming Valley 7½' 41°42'07"N 80°06'36"W	Quaternary sand	fine aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated, with possible minor Kent ground moraine (Shepps and others, 1959).
44	Shevitz, Walter R. D. 3 Conneaut Lake, PA 16316 (814) 382-8321		open pit Shevitz Conneaut Lake 7½' 41°34'18"N 80°20'58"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Crawford County (cont.)			
39	Smock, Mrs. Robert L. R. D. 2, Box 374 Meadville, PA 16335 (814) 724-2945		open pit Smock Meadville 7½' 41°40'19"N 80°13'31"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
28	Snow, Dale G., Excavating R. D. 1, Box 142-A Cambridge Springs, PA 16403 (814) 398-8624		open pit Martin sand and gravel Cambridge Springs 7½' 41°45'04"N 80°00'03"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
37	Sterling, Ramon L. R. D. 4, Box 120 Centerville, PA 16404 (814) 967-2593		open pit Ramon L. Sterling Centerville 7½' 41°40'51"N 79°47'45"W	Quaternary sand and gravel	construction aggregate	
31	Wallis, Donald R. R. D. 1 Saegertown, PA 16433 (814) 763-2529		open pit Pinneys Blooming Valley 7½' 41°42'43"N 80°01'23"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
33	Watson, Robert E. and Ruth Ann R. D. 4, Box 7 Centerville, PA 16404 (814) 967-4975 (814) 654-7688		open pit Watson Centerville 7½' 41°41'47"N 79°47'32"W	Quaternary sand and gravel	coarse aggregate (bank-run) crushed aggregate borrow and general fill topsoil	Borrow and general fill is shale. Gravel is mapped as kame and outwash deposits (Shepps and others, 1959).

CONSTRUCTION AGGREGATE (cont.)

SAND AND GRAVEL (cont.)

Erie County

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
12	Afton Trucking, Inc. 8923 Wattsburg Road Erie, PA 16509 (814) 825-6336	(814) 825-5103	open pit Valley Road Waterford 7½' 41°59'46"N 79°54'04"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B	
10	Afton Trucking, Inc. 8923 Wattsburg Road Erie, PA 16509 (814) 825-6336 (814) 796-4312	(814) 825-5103	open pit West Greene Hammett 7½' 42°01'46"N 79°54'49"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
15	Bedrock Sand and Gravel, Inc. 10400 Messengers Road Girard, PA 16417 (814) 774-8149		open pit Bedrock Albion 7½' 41°58'54"N 80°19'04"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mapped as Ashtabula moraine system (end moraines) by Shepps and others (1959).
22	Burawa, Joseph 13081 Old Plank Road Waterford, PA 16441 (814) 796-4284		open pit Burawa Cambridge Spr. NE 7½' 41°53'34"N 80°03'01"W	Quaternary sand and gravel	coarse aggregate	
24	Burdick, Vance E. R. D. 2 Cambridge Springs, PA 16403 (814) 796-4496		open pit Burdick Millers Station 7½' 41°51'20"N 79°59'35"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

CONSTRUCTION AGGREGATE (cont.)

SAND AND GRAVEL (cont.)

Erie County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
20	Colvin, Roy L. 11581 Edinboro Road Edinboro, PA 16412 (814) 734-4198		open pit Colvin Cambridge Spr. NE 7½' 41°55'17"N 80°07'11"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
11	Erie Aggregates, Inc. P. O. Box 10801 Erie, PA 16514-0801 (814) 825-4511 (814) 796-6714	(814) 825-5103	open pit Erie Aggregates Hammett 7½' 42°00'40"N 79°54'36"W	Quaternary sand and gravel	approved coarse aggregate types B, C approved fine aggregate type B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
2	Erie Sand and Gravel Company 2 East Bay Drive Erie, PA 16512 (814) 453-6721		dredge Erie Sand and Gravel Erie North 7½' 42°08'25"N 80°05'08"W	Quaternary sand and gravel	approved fine aggregate type A	Using suction hopper dredge in Lake Erie. Latitude and longitude are of pier. See Berkheiser (1987) for description of operation.
1	Girts Sand and Gravel 8553 Findley Lake Road North East, PA 16428 (814) 725-3987		open pit Girts Sand and Gravel North East 7½' 42°12'06"N 79°49'42"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate filter sand (N.Y.-approved) topsoil	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
17	Grubbs, Elwood M. P. O. Box 253 West Springfield, PA 16443 (814) 922-7308		open pit Grubbs East Springfield 7½' 41°57'37"N 80°25'24"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).

CONSTRUCTION AGGREGATE (cont.)

SAND AND GRAVEL (cont.)

Erie County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
6	Hoover Sand and Gravel Company, Inc. R. D. 1, Troupe Road Harborcreek, PA 16421 (814) 899-4618 (814) 739-9477		open pit Hoover No. 6 Wattsburg 7½' 42°02'44"N 79°49'59"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid topsoil	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
9	Hoover Sand and Gravel Company, Inc. R. D. 1, Troupe Road Harborcreek, PA 16421 (814) 899-4618 (814) 739-9588		open pit Hoover No. 9 Wattsburg 7½' 42°02'14"N 79°49'47"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B approved antiskid topsoil	Mining alluvium of the West Branch French Creek (Shepps and others, 1959).
4	Kuhl Sand and Gravel 9415 Peck Road Erie, PA 16510 (814) 899-9161		open pit Kuhl Hammett 7½' 42°05'46"N 79°59'00"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate types A, B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
8	Maybro Asphalt Company 1902 Cherry Street Erie, PA 16502 (814) 452-3748 (814) 739-2085		open pit Lowville No. 1 Wattsburg 7½' 42°02'29"N 79°49'22"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mapped principally as kames, kame terraces, kame moraines, and eskers, undifferentiated, with minor outwash(?) (Shepps and others, 1959).
13	Northwest Gravel Company 10746 Ridge Road Girard, PA 16417 (814) 774-3680		open pit No. 1 Albion 7½' 41°59'10"N 80°21'47"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959). Also operates a dredge.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Erie County (cont.)			
14	Over Lake, Inc. P. O. Box 169 Girard, PA 16417 (814) 774-3361		open pit Over Lake Albion 7½' 41°59'00"N 80°20'40"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Not active as of 1995. Mapped as Ashtabula moraine system (end moraines) by Shepps and others (1959).
21	Showman, Raymond D., and Sons, Inc. 12851 Sharp Road Edinboro, PA 16412-1667 (814) 796-4230		open pit Kingen Waterford 7½' 41°53'59"N 79°57'39"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as alluvium (Shepps and others, 1959). Mining the floodplain of French Creek, which contains outwash.
16	Sibleyville Land and Gravel Company 11015 Sharp Road Waterford, PA 16441 (814) 796-4766		open pit Sibleyville Cambridge Spr. NE 7½' 41°58'53"N 80°03'27"W	Quaternary sand and gravel	coarse aggregate topsoil	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated, with possible Lavery end moraine (Shepps and others, 1959).
7	Wroblewski Sand and Gravel, Inc. 12907 Halfmoon Road Wattsburg, PA 16442 (814) 739-9320 (814) 739-2085		open pit Wroblewski Wattsburg 7½' 42°02'35"N 79°49'23"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate type B approved antiskid	Mining glacial sand and gravel and alluvium of French Creek.
			Fayette County			
178	Fiore, Allan R., Inc. Box 710 West Elizabeth, PA 15088 (412) 384-6220 (412) 384-9718	(412) 384-6226	open pit Fiore Dawson 7½' 40°05'30"N 79°43'31"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Mining alluvium on the Youghiogheny floodplain. Intermittent production.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Forest County			
138	Kuntz, Jack P. O. Box 612 East Hickory, PA 16321 (814) 463-7723		open pit Kuntz West Hickory 7½' 41°35'06"N 79°24'26"W	Quaternary sand and gravel	coarse aggregate (bank-run) coarse aggregate (crushed)	Probably mining a mixture of undifferentiated glacial outwash and Allegheny River alluvium.
			Franklin County			
277	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 352-7081		open pits Mt. Cydonia No. 2 Scotland 7½' 39°54'44"N 77°31'40"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mines a quartz- and sandstone-rich alluvium.
			Lawrence County			
81	Book, Harold E. R. D. 1, Box 178 New Castle, PA 16101 (412) 652-8011		open pit Book Harlansburg 7½' 41°02'55"N 80°09'41"W	Quaternary sand and gravel	coarse aggregate borrow and general fill	Mapped as Kent end moraine (Shepps and others, 1959).
74	Buchowski, James L., Excavating R. D. 3 Volant, PA 16156 (412) 533-2140		open pit Moose's New Castle North 7½' 41°05'18"N 80°17'37"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as alluvium and outwash, undifferentiated (Shepps and others, 1959).
76	Cooper Brothers, Inc. R. D. 2, Box 39 Slippery Rock, PA 16057 (412) 794-4451		open pits Scott Township Harlansburg 7½' 41°02'00"N 80°10'09"W	Quaternary sand and gravel	coarse aggregate fine aggregate concrete-block aggregate	Mapped as kames and Kent end and ground moraine (Shepps and others, 1959).

CONSTRUCTION AGGREGATE (cont.)

SAND AND GRAVEL (cont.)

Lawrence County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
79	Cooper Brothers, Inc. R. D. 2, Box 39 Slippery Rock, PA 16057 (412) 794-4451		open pit Scott Township No. 2 Harlansburg 7½' 41°00'44"N 80°10'22"W	Quaternary sand and gravel	coarse aggregate fine aggregate concrete-block aggregate	Mapped as kames and Kent end and ground moraine (Shepps and others, 1959).
77	Drespling, John L. R. D. 2 New Wilmington, PA 16142 (412) 946-3147	(412) 946-8686	open pit Drespling Edinburg 7½' 41°03'51"N 80°23'02"W	Quaternary sand and gravel	coarse aggregate	
73	Hamilton, James F. R. D. 1 New Wilmington, PA 16142 (412) 946-2813		open pit Hamilton Edinburg 7½' 41°05'34"N 80°24'30"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run) topsoil borrow and general fill	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
80	McKnight, G.L., Inc. P. O. Box 773 Slippery Rock, PA 16570 (412) 530-2663	(412) 530-6696	open pit McKnight Harlansburg 7½' 41°03'01"N 80°09'06"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate type B	
78	Neshannock Sand and Gravel, Inc. R. D. 1, Box 72 New Castle, PA 16105 (412) 654-6679	(412) 658-8226	open pit Florida Edinburg 7½' 41°03'07"N 80°22'49"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated, with minor alluvium (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Lawrence County (cont.)						
84	Rose Point Sand and Gravel R. D. 4, Box 496 New Castle, PA 16101 (412) 654-2435 (412) 924-9355	(412) 654-2435	open pit Rhodes mine Portersville 7½' 40°58'42"N 80°11'21"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Washed product. Mapped as Kent end moraine (Shepps and others, 1959).
88	Russell Minerals, Inc. P. O. Box 510 Darlington, PA 16115 (412) 535-0770	(412) 535-3331	open pit Caravella New Castle South 7½' 40°55'10"N 80°22'10"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B concrete sand masonry sand filter sand	
91	Russell Minerals, Inc. P. O. Box 510 Darlington, PA 16115 (412) 535-0770	(412) 535-3331	open pit Johnson Farm New Castle South 7½' 40°54'50"N 80°22'10"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B approved antiskid	
94	Slippery Rock Materials R. D. 2, Box 228 Volant, PA 16156 (412) 530-7472	(412) 530-2164	open pit Slippery Rock Pit 1 Harlansburg 7½' 41°04'45"N 80°10'44"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate type B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated; alluvium; and possible Kent end moraine (Shepps and others, 1959).
Luzerne County						
498	Barletta Materials and Construction, Inc. P. O. Box 10 Hazleton, PA 18201 (717) 455-1511	(717) 455-7767	open pit Nescopeck Berwick 7½' 41°03'38"N 76°10'42"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate types A, B approved antiskid	Mapped as Woodfordian frontal kame, up to 180 feet thick (Inners, 1978). See Braun and Inners (1988) for geology and description.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Luzerne County (cont.)						
497	Hess, J.A. and W.A., Inc. P. O. Box 645 Hazleton, PA 18201 (717) 454-3731 (717) 379-3151	(717) 454-1996	open pit Nescopeck Berwick 7½' 41°03'39"N 76°09'42"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Mapped as Woodfordian frontal kame. See Inners (1978).
492	Hock, Clair C. P. O. Box 311 Lightstreet, PA 17839 (717) 784-3649		open pit Shickshinny Shickshinny 7½' 41°07'45"N 76°08'51"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Mining alluvium.
488	Hunlock Sand and Gravel Company R. D. 1, Box 275-A Hunlock Creek, PA 18621 (717) 256-3147	(717) 256-3534	open pit Hunlock Sweet Valley 7½' 41°15'48"N 76°07'44"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Appears to be a kame-like deposit associated with Roaring Brook.
495	Naunczek, John R. D. 1 Berwick, PA 18603 (717) 542-4021		open pit Naunczek Berwick 7½' 41°05'00"N 76°08'30"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	See Inners (1978) for geology. Mapped as Woodfordian terrace above the Susquehanna River.
479	Panco, John R. D. 1, Box 1119 Sweet Valley, PA 18656 (717) 477-5709 (717) 477-3995		open pit JP No. 1 Harveys Lake 7½' 41°19'20"N 76°07'24"W	Quaternary sand and gravel	coarse aggregate driveway materials	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Luzerne County (cont.)						
483	Pikes Creek Sand and Stone, Inc. P. O. Box 330 Sweet Valley, PA 18656 (717) 477-2919	(717) 477-3601	open pit Pit No. 2 Harveys Lake 7½' ~41°17'21"N ~76°05'15"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type B approved antiskid	Mining alluvium.
499	Pocono Transcrete, Inc. H. C. 1, Box 1078 Blakeslee, PA 18610 (717) 646-2662 (717) 443-7663	(717) 646-3144	open pit White Haven White Haven 7½' 41°02'25"N 75°46'30"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type A approved antiskid	
496	Riverview Block, Inc. R. D. 1, Box 1164 Berwick, PA 18603 (717) 752-7191		open pit Riverview Berwick 7½' 41°04'06"N 76°11'22"W	Quaternary sand and gravel	construction aggregate	Mining alluvium from the floodplain of the Susquehanna River.
Lycoming County						
302	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 368-2666	(610) 253-5734	open pit Montoursville Montoursville South 7½' 41°14'18"N 76°54'36"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate types A, C approved antiskid	See Faill (1979) for geology. Mapped as alluvium of the West Branch Susquehanna River.
McKean County						
186	Castelli, John Peter Box 96 East Smethport, PA 16730 (814) 887-5875		open pit Castelli Smethport 7½' 41°48'56"N 78°25'31"W	Quaternary sand and gravel	construction aggregate borrow and general fill topsoil	Mining alluvium on the floodplain of Potato Creek.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				SAND AND GRAVEL (cont.)		
				McKean County (cont.)		
184	Wayne Gravel Products R. D. 2 Shinglehouse, PA 16748 (814) 697-7191	(814) 697-7484	open pit Faukner Mine Bullis Mills 7½' 41°59'39"N 78°15'30"W	Quaternary sand and gravel	approved coarse aggregate type C fine aggregate approved antiskid	Mining alluvial deposits. Produces washed, crushed products that meet Pennsylvania and New York specifications.
				Mercer County		
59	Atlantic States Materials of Pennsylvania P. O. Box 348 Sewickley, PA 15143 (412) 749-0611	(412) 749-0622	open pit Atlantic States Mercer 7½' 41°11'47"N 80°13'58"W	Quaternary sand and gravel	approved coarse aggregate type C masonry sand	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
60	G & G Ag Service, Inc. 24 Dydek Lane Mercer, PA 16137 (412) 748-3838	(412) 748-3838	open pit G & G Mercer 7½' 41°11'45"N 80°14'18"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
54	H & H Materials 190 Canon Road Stoneboro, PA 16153 (412) 376-2834	(412) 376-2106	open pit Lake Township Jackson Center 7½' 41°21'50"N 80°08'53"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate type B approved antiskid	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
57	Hoffman, Roger L. 22 McMillan Road Mercer, PA 16137 (412) 662-2221		open pit Mercer Mercer 7½' 41°13'15"N 80°12'56"W	Quaternary sand and gravel	coarse aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Mercer County (cont.)			
49	Hoobler, Philip Box 5 Sheakleyville, PA 16151 (412) 253-2262		open pit Hoobler Hadley 7½' 41°28'05"N 80°14'04"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
62	Lark, Donald, and Sons 339 Garfield Street West Middlesex, PA 16159 (412) 528-3286	(412) 528-3287	open pit Lark Sharon East 7½' 41°07'52"N 80°25'56"W	Quaternary sand and gravel	fine aggregate (sand)	
56	Seidle Sand and Gravel, Inc. P. O. Box 231 Mercer, PA 16137 (412) 662-5070		open pit Seidle Greenfield 7½' 41°14'46"N 80°17'44"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate type B approved antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
50	Shenango Valley Sand and Gravel 7240 Glenwood Avenue Youngstown, OH 44512 (216) 758-9100		open pit Shine Greenville West 7½' 41°27'02"N 80°24'57"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mapped as undifferentiated kame and outwash deposits with minor Kent ground moraine (Shepps and others, 1959).
55	Taylor, J., Sand and Gravel Company P. O. Box 661 Sharon, PA 16146 (412) 342-7230		open pit Big Bend Fredonia 7½' 41°16'36"N 80°18'36"W	Quaternary sand	fine aggregate antiskid	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Monroe County						
626	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		open pit Saylorsburg pit Saylorsburg 7½' 40°55'52"N 75°18'06"W	Quaternary sand	fine aggregate approved antiskid	Mining undifferentiated glacial sand.
622	Pocono Industries, Inc. R. D. 2, Box 2217, Hickory Valley Road Stroudsburg, PA 18360 (717) 421-3889		open pit Lesoine Saylorsburg 7½' 40°58'09"N 75°15'25"W	Quaternary sand and gravel	coarse aggregate approved fine aggregate types A, B approved antiskid crusher run	
616	Pocono Transcrete, Inc. H. C. 1, Box 1078 Blakeslee, PA 18610 (717) 646-2662	(717) 646-3144	open pit Blakeslee Blakeslee 7½' 41°06'37"N 75°36'10"W	Quaternary sand and gravel	coarse aggregate (crushed) fine aggregate (washed)	Mapped as Woodfordian ice-contact stratified drift (Sevon, 1975b).
613	Selig Construction Company, Inc. H. C. 88, Box 185 Pocono Lake, PA 18347 (717) 646-1100		open pit Blue Ridge No. 1 Thornhurst 7½' 41°08'12"N 75°36'37"W	Quaternary sand and gravel	fine aggregate	Product used exclusively for septic beds. Appears to be a kame-like deposit.
635	Weber, William C. 4038 Manor Drive Stroudsburg, PA 18360 (717) 992-5495		open pit Weber Saylorsburg 7½' 40°57'46"N 75°15'39"W	Quaternary sand and gravel	coarse aggregate	Mines an apparent kame deposit near McMichael Creek.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	CONSTRUCTION AGGREGATE (cont.)					
	SAND AND GRAVEL (cont.)					
	Northampton County					
645	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 258-2345	(610) 867-1886	open pit Martins Creek Bangor 7½' 40°46'54"N 75°09'52"W	Quaternary sand and gravel Jacksonburg limestone	approved coarse aggregate SRL E approved fine aggregate type A approved antiskid limestone for cement manufacture	Valley-train outwash. See Krueger (1970) for description. See Kelly (1996) for a view of the company's reclamation effort.
636	Penn Jersey Paving Materials, Inc. 5290 West Coplay Road Whitehall, PA 18052 (717) 897-5151 (610) 262-1855	(717) 897-7307 (610) 262-5586	open pit Mt. Bethel Portland 7½' 40°54'46"N 75°07'21"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type A	Mapped as undifferentiated glacial deposits. See Drake and others (1969).
	Northumberland County					
405	Central Builders Supply Company P. O. Box 152 Sunbury, PA 17801-0152 (717) 286-6461 (717) 473-9532	(717) 286-5108	open pit Northumberland Riverside 7½' 40°55'05"N 76°44'10"W	Quaternary sand and gravel Quaternary glacial gravel	approved coarse aggregate SRL E approved fine aggregate type A	Mining alluvium on the floodplain of the Susquehanna River.
	Pike County					
605	Bill and Wayne Enterprises, Inc. Mill Road Greeley, PA 18425 (717) 226-9558		open pit B & W Enterprises Rowland 7½' 41°24'26"N 75°02'58"W	Quaternary sand and gravel	coarse aggregate	See Sevon and others (1989) for geology.
606	Blooming Grove Sand and Gravel R. D. 2, Box 309 Lake Ariel, PA 18436 (717) 226-4585		open pit Blooming Grove Rowland 7½' 41°23'46"N 75°06'37"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type A approved antiskid	Formerly Pike County Sand and Gravel. Mining in pits on the west bank of Blooming Grove Creek. See Sevon and others (1989) for geology

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Pike County (cont.)						
611	Edwards, George F. P. O. Box 174 Elmhurst, PA 18416 (717) 842-8438 (717) 676-3200	(717) 842-8467 (717) 676-0643	quarry South Sterling Newfoundland 7½' 41°16'41"N 75°19'57"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Mapped as Olean ice-contact stratified sand and gravel. See Sevon and others (1989) for geology.
609	FAW Associates Route 6 West Milford, PA 18337 (717) 296-5586	(717) 296-8639	open pit FAW Milford 7½' 41°20'16"N 74°49'29"W	Quaternary sand and gravel Trimmers Rock sandstone	coarse aggregate rip-rap topsoil screened fill	See Sevon and others (1989) for geology.
607	Prevost, Yvon 596 South Main Street West Hartford, CT 06110 (203) 561-0191		open pit North Castle Acres Pond Eddy 7½' 41°23'39"N 74°46'25"W	Quaternary sand and gravel	coarse aggregate	See Sevon and others (1989) for geology. May be mining a thin sandy till.
610	Sunnylands, Inc. 3000 Sunrise Lake Milford, PA 18337 (717) 686-2371		open pit Sunnylands Edgemere 7½' 41°19'33"N 74°57'49"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Mining floodplain of Rattlesnake Creek. See Sevon and others (1989) for geology.
Potter County						
232	Buckler Construction Company R. D. 3, Box 255 Coudersport, PA 16915 (814) 647-8961	(814) 647-9952	open pit Toles Hollow Coudersport 7½' 41°45'32"N 78°02'44"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Outwash valley train of the Allegheny River.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Potter County (cont.)			
230	Johnson Excavating R. D. 1, Box 16 Roulette, PA 16746 (814) 544-9969	(814) 544-7516	open pit Johnson Excavating Roulette 7½' 41°47'41"N 78°10'30"W	Quaternary sand and gravel Quaternary glacial gravel	coarse aggregate	Mining alluvium on the floodplain of the Allegheny River.
			Schuylkill County			
513	Grow, Daniel G. 223 Arch Street Ringtown, PA 17967 (717) 889-3346		open pit The Hill Ashland 7½' 40°51'18"N 76°16'34"W	Quaternary sand	fine aggregate	Mining a glacial kame deposit. See Braun and Springman (1983) for a discussion of the geology.
			Susquehanna County			
438	New Milford Sand and Gravel R. D. 2, Box 231 New Milford, PA 18834 (717) 465-3395	(717) 465-3107	open pit New Milford Great Bend 7½' 41°54'14"N 75°43'51"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C fine aggregate approved antiskid	Appears to be mining a kame-like deposit associated with Salt Lick Creek.
444	Witiak Excavating R. D. 1, Box 14 Union Dale, PA 18470 (717) 679-2494		open pit Witiak Thompson pit Thompson 7½' 41°51'49"N 75°31'20"W	Quaternary sand and gravel	coarse aggregate (bank-run) coarse aggregate (crushed) fine aggregate (bank-run) fine aggregate (screened) topsoil	Appear to be kame-like deposits associated with a creek. Operation for sale as of 1995.
			Tioga County			
293	Dean, Earl F., Inc. P. O. Box P, Rt. 6 West Galeton, PA 16922 (814) 435-6581 (717) 376-3531		open pit Middlebury Keeneyville 7½' 41°50'53"N 77°16'44"W	Quaternary sand and gravel	coarse aggregate	Outwash and a possible kame terrace deposit.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Tioga County (cont.)						
294	Hamm, Michael L. R. D. 2, Box 137 Wellsboro, PA 16901 (717) 724-2319		open pit Hamm Keeneyville 7½' 41°47'30"N 77°17'41"W	Quaternary sand and gravel	coarse aggregate sand for septic systems	
290	Heysham Paving Company, Inc. R. D. 1, Box 41 Elkland, PA 16920 (717) 827-2816 (717) 827-2473		open pit Heysham No. 1 Elkland 7½' 41°58'56"N 77°15'20"W	Quaternary sand and gravel	coarse aggregate antiskid sand-mound sand	Glacial outwash and kame deposits, undifferentiated.
291	Tri-Lakes Construction R. D. 2 Tioga, PA 16946 (717) 827-2874		open pit Lawrenceville Jackson Summit 7½' 41°58'10"N 77°06'05"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Glacial outwash and kame deposits, undifferentiated.
Venango County						
64	Cooperstown Sand and Gravel R. D. 2, Box 10 Franklin, PA 16323 (814) 432-3448 (814) 374-4412	(814) 374-4328 (814) 374-4328	open pit Cooperstown Franklin 7½' 41°29'18"N 79°52'00"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate type A approved antiskid	Producing both bank-run and dredged aggregate. Probably glacial valley outwash.
66	Huff, Carl E. 1178 Otter Street Franklin, PA 16323 (814) 432-3308		open pit Huff Franklin 7½' 41°25'24"N 79°51'03"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologics	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Venango County (cont.)			
65	IA Construction Corporation P. O. Box 8 Concordville, PA 19331 (610) 459-3136 (814) 437-6921		open pit Burkhardt Utica 7½' 41°26'12"N 79°53'14"W	Quaternary sand and gravel	approved coarse aggregate type C approved fine aggregate types A, B approved antiskid	Mapped as glacial outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959). Mining the floodplain of Sugar Creek.
72	Marlowe, Paul A. Box 603 Kennerdell, PA 16374 (814) 385-6857		open pit Louise Kennerdell 7½' 41°15'55"N 79°50'22"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
67	Vincent Excavating and Gravel P. O. Box 229 Franklin, PA 16323 (814) 432-8126	(814) 432-7753	open pit Vincent Excavating Franklin 7½' 41°25'17"N 79°50'46"W	Quaternary sand and gravel	coarse aggregate landfill cover material	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
			Warren County			
131	Bailey and Turner Gravel R. D. 2, Box 227 Pittsfield, PA 16340 (814) 563-9088		open pit Bailey and Turner Sugar Grove 7½' 41°55'27"N 79°18'06"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
133	Brokenstraw Gravel, Inc. P. O. Box 77 Pittsfield, PA 16340 (814) 563-7911		open pit Brokenstraw Gravel Pittsfield 7½' 41°51'27"N 79°23'48"W	Quaternary sand and gravel	approved coarse aggregate type C fine aggregate approved antiskid	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).

CONSTRUCTION AGGREGATE (cont.)

SAND AND GRAVEL (cont.)

Warren County (cont.)

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
129	Cable, Dick, Gravel Products Box 271 Russell, PA 16345 (814) 757-9400		open pit Cable Russell 7½' 41°56'13"N 79°07'46"W	Quaternary sand and gravel	coarse aggregate (bank-run)	Mapped as undifferentiated kame and outwash deposits (Shepps and others, 1959).
132	IA Construction Corporation P. O. Box 8 Concordville, PA 19331 (610) 459-3136 (814) 563-4721		open pit General Concrete Pittsfield 7½' 41°52'05"N 79°23'57"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Sometimes called the Pittsfield pit. Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
134	IA Construction Corporation P. O. Box 8 Concordville, PA 19331 (610) 459-3136 (814) 723-2144		dredge Starbrick Warren 7½' 41°50'16"N 79°12'11"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate types A, B approved antiskid	Mining the Allegheny River floodplain. Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).
130	Jackson and Roth P. O. Box 32 Corry, PA 16407 (814) 664-7613		open pit Jackson and Roth Columbus 7½' ~41°55'35"N ~79°32'46"W	Quaternary sand and gravel	coarse aggregate (bank-run)	
136	Tionesta Sand and Gravel, Inc. P. O. Box 307 Tionesta, PA 16353 (814) 755-3547 (814) 563-7283	(814) 755-2448	open pit Garland plant Pittsfield 7½' 41°48'48"N 79°27'23"W	Quaternary sand and gravel	approved coarse aggregate type C fine aggregate antiskid	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Warren County (cont.)						
127	Tionesta Sand and Gravel, Inc. P. O. Box 307 Tionesta, PA 16353 (814) 755-3547	(814) 755-2448	open pit Russell Russell 7½' 41°56'32"N 79°07'35"W	Quaternary sand and gravel	approved coarse aggregate type C fine aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
137	Tionesta Sand and Gravel, Inc. P. O. Box 307 Tionesta, PA 16353 (814) 755-3547 (814) 484-3518	(814) 755-2448	open pit Tidioute plant Tidioute 7½' 41°40'03"N 79°24'40"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Mapped as outwash, river terraces, and lake deposits, undifferentiated (Shepps and others, 1959). See Sevon and Berkheiser (1992) for geology and description.
135	Yeagle Excavating P. O. Box 924 Warren, PA 16365 (814) 723-9220		open pit Glade Run Clarendon 7½' 41°49'38"N 79°07'00"W	Quaternary sand and gravel	coarse aggregate (bank-run) coarse aggregate (crushed)	Mapped as undifferentiated kame and outwash deposits (Shepps and others, 1959).
Wayne County						
583	Bigart, E.R., Gravel Company R. D. 3 Honesdale, PA 18431 (717) 253-4998		open pit Bigart Gravel Aldenville 7½' 41°38'23"N 75°21'07"W	Quaternary sand and gravel	coarse aggregate fine aggregate	Outwash and kame-like deposit associated with the Lackawaxen River.
600	Ciccone Excavating, Inc. R. D. 2 Honesdale, PA 18431 (717) 253-0718		open pit Ciccone Excavating Hawley 7½' 41°28'06"N 75°11'37"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SAND AND GRAVEL (cont.)						
Wayne County (cont.)						
601	Ciccone, Diane R. D. 2 Honesdale, PA 18431 (717) 253-5518		open pit Ciccone Lakeville 7½' ~41°23'45"N ~75°20'21"W	Quaternary sand and gravel	coarse aggregate (bank-run) fine aggregate (bank-run)	
578	Cookson, David R. D. 1, Box 111 Waymart, PA 18472 (717) 448-2225	(717) 448-2177	open pit Cookson Forest City 7½' 41°44'54"N 75°22'58"W	Quaternary sand and gravel	coarse aggregate	
592	Palko, John J. R. D. 2, Box 267-2A Waymart, PA 18472 (717) 488-6634		open pit Palko Honesdale 7½' 41°33'04"N 75°22'02"W	Quaternary sand and gravel	coarse aggregate (bank-run)	As of 1995, licensed but not operating. In search of an operator.
595	Wayco, Inc. P. O. Box Y Waymart, PA 18472 (717) 488-5320	(717) 488-5380	open pit South Canaan Honesdale 7½' 41°31'42"N 75°22'24"W	Quaternary sand and gravel	coarse aggregate fine aggregate	
Westmoreland County						
170	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900		dredge New Ken New Kensington 7½' 40°33'23"N 79°45'57"W	Quaternary sand and gravel	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Plant processes glacial outwash dredged from Allegheny River pools 6 and 3.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Wyoming County			
463	American Asphalt Paving Company 500 Chase Road Shavertown, PA 18708 (717) 696-1181 (717) 654-0414	(717) 696-3486	open pit East Falls plant Center Moreland 7½' 41°27'16"N 75°51'59"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mining outwash terraces of the Susquehanna River. Company also has source of approved aggregate at Exeter Falls.
464	Chamberlain Sand and Gravel P. O. Box 10 Falls, PA 18615 (717) 388-6687		open pit Chamberlain Ransom 7½' 41°27'18"N 75°51'22"W	Quaternary sand and gravel	coarse aggregate	Mining an outwash terrace of the Susquehanna River.
462	Geary Enterprises Concrete R. D. 1, Box 368 Falls, PA 18615 (717) 388-6184 (717) 378-2824	(717) 388-6891	open pit Geary Enterprises Ransom 7½' 41°28'28"N 75°50'28"W	Quaternary sand and gravel	approved coarse aggregate SRL E approved fine aggregate type B aggregate for concrete	Mining alluvium or glacial materials.
457	Linde Enterprises, Inc. P. O. Box A Honesdale, PA 18431 (717) 253-2643	(717) 253-1321	open pit Brown's Factoryville 7½' 41°35'42"N 75°51'18"W	Quaternary sand and gravel	construction aggregate (bank run) sand-mound sand	Mining a probable glacial deposit.
456	Wyoming Sand and Stone Company R. D. 2, Box 100 Tunkhannock, PA 18657 (717) 836-2117	(717) 836-6317	open pit Jayne Bend Meshoppen 7½' 41°36'30"N 76°03'30"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SAND AND GRAVEL (cont.)			
			Wyoming County (cont.)			
460	Wyoming Sand and Stone Company R. D. 2, Box 100 Tunkhannock, PA 18657 (717) 836-2117	(717) 836-6317	open pit South Eaton Center Moreland 7½' 41°29'55"N 75°54'25"W	Quaternary sand and gravel	coarse aggregate fine aggregate antiskid	Mining and blending material from three pits in Eaton Twp. (S. Eaton, Robinson, and Kapolka). Appears to be mining outwash on the Susquehanna River floodplain.
			SANDSTONE			
			Allegheny County			
122	Collier Stone Company 80 Noblestown Road Carnegie, PA 15106 (412) 276-7300 (412) 921-2230	(412) 276-0942 (412) 922-6284	quarry Kisow Pittsburgh West 7½' ~40°27'05"N ~80°05'57"W	Monongahela Group sandstone	coarse aggregate rip-rap gabion stone dimension stone	Company also supplies recycled crushed concrete and recycled asphalt pavement.
121	Collier Stone Company 80 Noblestown Road Carnegie, PA 15106 (412) 276-7300	(412) 276-0942	quarry McShane Oakdale 7½' 40°23'59"N 80°07'48"W	Monongahela Group sandstone	coarse aggregate rip-rap gabion stone dimension stone	Company also supplies recycled crushed concrete and recycled asphalt pavement. Reported to be producing from the Morgantown sandstone.
116	Collier Stone Company 80 Noblestown Road Carnegie, PA 15106 (412) 276-7300	(412) 276-0942	quarry North Allegheny Curtisville 7½' ~40°40'00"N ~79°49'00"W	Glenshaw sandstone	coarse aggregate rip-rap gabion stone dimension stone	Company also supplies recycled crushed concrete and recycled asphalt pavement.
117	Heights Plaza Materials Springhill Road Natrona Heights, PA 15065 (412) 224-6113	(412) 224-3555	quarry Heights Plaza New Kensington 7½' 40°37'12"N 79°43'20"W	Glenshaw sandstone	coarse aggregate fine aggregate	Also selling screened and crushed slag.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Armstrong County			
160	Buffalo Limestone, Inc. R. D. 1, Box 55-C Kittanning, PA 16201 (412) 545-7478	(412) 543-4261	open pit Leroy Mine Mosgrove 7½' 40°47'25"N 79°26'14"W	Worthington sandstone Johnstown limestone	construction aggregate	Type C sandstone and Type A limestone screenings through R-5.
165	South Bend Limestone Corporation 200 Route 22 Delmont, PA 15626 (412) 468-8232 (412) 478-1493	(412) 468-8230 (412) 478-4607	open pit Coleman Whitesburg 7½' 40°38'16"N 79°24'50"W	Allegheny Group sandstone Vanport limestone	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Also producing limestone aggregate, agricultural limestone, and fireclay. See "Limestone" and "Clay."
			Berks County			
534	Martin Stone Quarries, Inc. P. O. Box 297 Bechtelsville, PA 19505 (610) 367-2011		quarries Martin Stone Boyertown 7½' 40°21'37"N 75°37'46"W	Hardyston quartzite	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	Selective mining. Clayey overburden marketed as landfill liner. See "Gneiss" and "Clay." See Buckwalter (1959) for geology and Pennsylvania Geological Survey (1984) for description.
			Blair County			
207	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 224-2121	(814) 224-6800 (814) 224-6805	quarry Roaring Spring No. 3 Roaring Spring 7½' 40°20'53"N 78°24'38"W	Bald Eagle sandstone	coarse aggregate antiskid	Also mining Ordovician carbonates for approved aggregate, SO2 absorption, and railroad ballast. See Remick (1991) for SO2 sorbent application. See Atlee (1989) for history. See "Limestone."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SANDSTONE (cont.)						
Bradford County						
380	New Milford Sand and Gravel R. D. 2, Box 231 New Milford, PA 18834 (717) 465-3395	(717) 465-3107	quarry Lou Case Ulster 7½' 41°47'01"N 76°35'16"W	Lock Haven sandstone and coquinite	coarse aggregate fine aggregate rip-rap	See Woodrow (1981) for geologic description of the quarry.
382	Ward, E.A., Excavating, Inc. R. D. 3, Box 244 Troy, PA 16947-9430 (717) 297-3817	(717) 297-5100	open pit Ward East Troy 7½' 41°46'10"N 76°41'44"W	Catskill sandstone	construction aggregate	
Bucks County						
667	Delaware Quarries Rt. 32 Lumberville, PA 18933 (215) 297-5647		quarry Lumberville Lumberville 7½' 40°24'10"N 75°01'13"W	Stockton sandstone	fine aggregate dimension stone	Fine aggregate is a byproduct of the dimension-stone business. See "Dimension Stone."
Cambria County						
200	B & Y Sand and Gravel, Inc. 506 Hillside Avenue State College, PA 16803 (814) 237-1863	(814) 237-1863	quarry Sidman Beaverdale 7½' 40°19'45"N 78°42'17"W	Glenshaw sandstone	coarse aggregate fine aggregate sand for concrete manufacture topsoil	
Carbon County						
510	Alliance Sand Company 415 Golf Road Palmerton, PA 18071 (908) 534-4116 (610) 826-2248		quarry Alliance Sand Co. Lehighton 7½' 40°48'07"N 75°38'32"W	Palmerton sandstone	fine aggregate antiskid silica for concrete manufacture	See Epstein and others (1974).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Carbon County (cont.)			
509	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932	(610) 867-1886	quarry Little Gap Palmerton 7½' 40°49'51"N 75°31'12"W	Palmerton sandstone	coarse aggregate approved fine aggregate type A approved antiskid	See Sevon (1970) and Epstein and others (1974) for analyses and description.
511	Huss Contracting Company P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559	(717) 668-5910	quarry East Penn Nesquehoning 7½' 40°45'40"N 75°46'48"W	Trimmers Rock sandstone	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Mining the lower member, a sandstone containing some shale and siltstone. See Wood (1974) for geology.
507	Jamico, Inc. HC-2, Box 2840 Jim Thorpe, PA 18229 (717) 325-2064	(717) 325-9398	quarry South Pit Christmans 7½' 40°57'58"N 75°38'40"W	Catskill sandstone	coarse aggregate fine aggregate borrow and general fill	Mining the Duncannon Member of the Catskill Formation. For geology, see Sevon (1975a).
512	Refractory Sand Company, Inc. P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559	(717) 668-5910	quarry East Penn Twp. Lehighton 7½' 40°45'38"N 75°44'49"W	Palmerton sandstone	approved fine aggregate type A approved antiskid	See Epstein and others (1974) for geology.
			Chester County			
563	Valley Forge Stone Company Welsh Road Honey Brook, PA 19344 (610) 273-2921	(610) 273-7379	quarry Valley Forge Stone Honey Brook 7½' 40°07'26"N 75°54'14"W	Chickies quartzite	coarse aggregate fine aggregate approved antiskid rip-rap	See Berkheiser (1985a) for chemical analyses.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SANDSTONE (cont.)						
Clarion County						
149	Ancient Sun, Inc. P. O. Box 129 Shippenville, PA 16254 (814) 797-1203	(814) 797-1204	open pit Foust pit Rimersburg 7½' 41°02'28"N 79°37'10"W	Pottsville Group sandstone	construction aggregate	Not yet producing as of 1995.
142	Brooklyn Services P. O. Box 297 Strattanville, PA 16258 (814) 764-3000		open pit Brooklyn Services Strattanville 7½' 41°13'27"N 79°19'40"W	Allegheny Group sandstone	construction aggregate (bank-run)	
146	Glenn, Charles R. P. O. Box 212 Corsica, PA 15829 (814) 379-3646		quarry Glenn Corsica 7½' 41°10'43"N 79°13'00"W	Allegheny Group sandstone	coarse aggregate	
Clearfield County						
192	IA Construction Corporation P. O. Box 8 Concordville, PA 19331 (610) 459-3136 (814) 342-2723		quarry Bigler Wallaceton 7½' 40°58'23"N 78°17'47"W	Mercer sandstone	coarse aggregate antiskid	See Edmunds (1968) for geology.
Columbia County						
395	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 784-2888	(610) 253-5734	quarry Columbia Bloomsburg 7½' 41°03'44"N 76°29'48"W	Catskill sandstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	Mining a red sandstone, the Sherman Creek Member of the Catskill Formation. For geology, see Inners (1981).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				SANDSTONE (cont.)		
				Columbia County (cont.)		
392	Stillwater Asphalt, Inc. P. O. Box 330 Benton, PA 17814 (717) 925-2180	(717) 925-5187	open pit Kline Road Stillwater 7½' 41°08'41"N 76°22'26"W	Trimmers Rock sandstone	fine aggregate	
				Cumberland County		
364	Hempt Brothers, Inc. 205 Creek Road Camp Hill, PA 17011 (717) 737-3411 (717) 486-5111		clay pit Toland mine Mount Holly Springs 7½' 40°04'30"N 77°13'03"W	Harpers sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	Mining the Montalto Member. See Freedman (1967) for geology, Berkheiser (1985a) for analyses, and Berkheiser and Potter (1982) for description.
363	NEP Sand and Gravel, Inc. 245 Butler Avenue Lancaster, PA 17601 (717) 390-9892 (717) 530-1559	(717) 390-9896 (717) 530-5752	open pit NEP Walnut Bottom 7½' 40°03'14"N 77°24'50"W	Antietam quartzite	coarse aggregate sand for concrete manufacture masonry sand baseball infield mix	
359	Penn Products Corporation 1369 Swope Drive Boiling Springs, PA 17007 (717) 258-6481		quarry White Rock sandstone Mechanicsburg 7½' 40°07'39"N 77°05'16"W	Antietam sandstone	coarse aggregate(?) borrow and general fill(?)	May have high-purity silica potential; see Berkheiser (1985a). For geology, see Root (1978).
361	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 486-5414	(717) 238-7312 (717) 486-5109	quarry Mount Holly Springs Mount Holly Springs 7½' 40°06'14"N 77°13'00"W	Antietam sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid	See Berkheiser (1985a) for analyses. See Key and Sims (1991) for geology and description.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SANDSTONE (cont.)						
Dauphin County						
415	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 362-3388	(717) 524-7995	quarry Elizabethville Elizabethville 7½' 40°32'26"N 76°48'58"W	Pocono sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid sand for septic systems approved landfill aggregate	Mining the Mount Carbon and Beckville Members of the Pocono. For geology, see Hoskins (1976) and Sevon and others (1986).
Erie County						
19	Troyer, Mervin 7400 Route 97 Union City, PA 16438 (814) 438-3287		open pit Troyer Waterford 7½' 41°55'21"N 79°53'44"W	Venango sandstone	coarse aggregate topsoil	
Fayette County						
179	Commercial Stone Company, Inc. 2200 Springfield Pike Connellsville, PA 15425-9503 (412) 626-0800	(412) 626-8543	quarry Rich Hill Connellsville 7½' 40°02'37"N 79°30'52"W	Burgoon sandstone	approved coarse aggregate type C approved fine aggregate type B approved antiskid	Blending underlying Burgoon with overlying Loyalhanna. See MacQueen (1995) for description of manufactured sand process. See "Limestone."
Franklin County						
278	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 352-3411		quarry Mt. Cydonia No. 1 Scotland 7½' 39°53'38"N 77°30'50"W	Antietam sandstone and quartzite	approved fine aggregate type A approved antiskid colored sands - various	Mines a weathered, friable, varicolored-to-white sandstone. See Berkheiser (1985a) for analysis, Fauth (1968) and Sevon and Van Scyoc (1991) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Fulton County			
268	Mellott, H.B., Estate, Inc. R. D. 1, Box 25 Warfordsburg, PA 17267 (717) 294-3281	(717) 294-6878	quarry Smith sandstone Needmore 7½' 39°47'24"N 78°09'39"W	Ridgeley sandstone	fine aggregate	Temporarily inactive as of 1995. See Atlee (1990) for history.
			Indiana County			
169	Coal Processing Services, Inc. 234 Merlo Road Mineral Point, PA 15942-9719 (814) 322-1545	(814) 322-1549	quarry Cramer Vintondale 7½' 40°24'53"N 78°59'34"W	Pottsville Group sandstone	construction aggregate rip-rap	Product listed as "crushed stone." Mining the Homewood Sandstone of the Pottsville Group.
167	Griffith, Edward C., Quarrying, Inc. R. D. 1, Box 176 Rochester Mills, PA 15771 (412) 286-9670		quarry Rochester Mills Marion Center 7½' 40°50'13"N 79°02'51"W	Glenshaw sandstone	coarse aggregate fine aggregate approved antiskid rip-rap	
			Jefferson County			
152	Glenn Brothers Quarry P. O. Box 281 Corsica, PA 15829 (814) 856-2401	(814) 226-8412	quarry Glenn Brothers Corsica 7½' 41°09'37"N 79°09'57"W	Allegheny Group sandstone	coarse aggregate fine aggregate sand-mound sand	
			Lackawanna County			
477	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Daleville Moscow 7½' 41°17'18"N 75°32'00"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Lackawanna County (cont.)			
476	Keystone Quarry, Inc. P. O. Box 249 Dunmore, PA 18512 (717) 348-3133	(717) 348-3135	quarry Keystone Quarry Olyphant 7½' 41°25'21"N 75°35'35"W	Pottsville Group sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type A gabion stone sand for cement manufacture	
474	Scranton Materials 819 Newton Road Scranton, PA 18504 (717) 961-8586		quarry West Mountain Scranton 7½' 41°26'37"N 75°42'04"W	Spechty Kopf sandstone	approved coarse aggregate type C fine aggregate rip-rap sand-mound sand building stone	See Stone (1932) for description of West Mountain quarries.
467	Wargo, John R. D. 2, Box 161 Jermyn, PA 18433 (717) 254-6945		quarry Wargo Carbondale 7½' 41°34'07"N 75°36'10"W	Catskill sandstone	construction aggregate flagstone fieldstone	
			Luzerne County			
486	American Asphalt Paving Company 500 Chase Road Shavertown, PA 18708 (717) 696-1181 (717) 829-1181	(717) 696-3486 (717) 829-3044	quarry 315 Pittston 7½' 41°16'56"N 75°48'15"W	Llewellyn sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid rip-rap railroad ballast	Company also has source of approved aggregate at Exeter Falls. Could also be mining the Pottsville Formation.
482	American Asphalt Paving Company 500 Chase Road Shavertown, PA 18708 (717) 696-1181	(717) 696-3486	quarry Chase Kingston 7½' 41°17'26"N 75°57'40"W	Catskill siltstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid rip-rap railroad ballast gabion stone	Predominantly red beds. Company also has source of approved aggregate at Exeter Falls.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SANDSTONE (cont.)						
Luzerne County (cont.)						
484	Coolbaugh Sand and Stone 226 New Boston Road Pittston, PA 18640 (717) 654-2674	(717) 654-1911	quarry Coolbaugh Pittston 7½' 41°17'17"N 75°45'39"W	Pottsville Group sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid rip-rap railroad ballast	
493	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 443-8131	(610) 253-5734 (717) 443-8129	quarry White Haven White Haven 7½' 41°05'50"N 75°46'24"W	Mauch Chunk sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B	Mining red sandstone. Subcontractors for White Haven Red Rock Sales.
501	No. 1 Contracting Corporation 1001 Wilkes-Barre Township Boulevard Wilkes-Barre, PA 18702 (717) 823-0325 (717) 459-6812	(717) 823-9962	quarry Harwood Conyngham 7½' 40°56'50"N 76°01'06"W	Llewellyn sandstone	approved coarse aggregate SRL E; type C	
481	Pikes Creek Sand and Stone, Inc. P. O. Box 330 Sweet Valley, PA 18656 (717) 477-2919	(717) 477-3601	quarry Pit No. 1 Harveys Lake 7½' 41°17'27"N 76°05'14"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B	
494	Small Mountain Quarry, Inc. 125 North Warren Street West Hazleton, PA 18201 (717) 455-3961 (717) 868-3716	(717) 459-0322	quarry Dorrance Freeland 7½' 41°05'09"N 75°58'09"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	Mining the Duncannon Member of the Catskill Formation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SANDSTONE (cont.)						
Lycoming County						
301	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271	(610) 253-5734	quarry Loyalsock Montoursville South 7½' 41°15'00"N 76°56'42"W	Ridgeley sandstone	fine aggregate	Mining the "Oriskany" sandstone. See Faill (1979) and Wells and Bucek (1980) for geology and description.
Mercer County						
52	White Rock Silica Sand Company 331 Methodist Road Greenville, PA 16125 (412) 588-7020		quarry White Rock Silica Sand Greenville East 7½' 41°22'59"N 80°21'37"W	Sharon sandstone	coarse aggregate	See Stone (1932) for geologic description.
Mifflin County						
253	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 242-0252	(717) 524-7995	quarry Strodes Mill Belleville 7½' 40°33'17"N 77°41'11"W	Ridgeley sandstone	fine aggregate mortar sand	Mining the "Oriskany" sandstone. About 2 miles NE of abandoned glass sand operation, first worked in 1868. See Fettke (1919).
Monroe County						
625	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Saylorsburg sandstone Saylorsburg 7½' 40°56'12"N 75°17'37"W	Schoharie siltstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	
614	H & K Materials P. O. Box 196 Skippack, PA 19474 (610) 584-8500 (717) 646-3324	(610) 584-5059	quarry Locust Ridge Thornhurst 7½' 41°08'06"N 75°33'38"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Northumberland County			
407	Bear Gap Stone, Inc. R. D. 1 Elysburg, PA 17824 (717) 672-9018		quarry Bear Gap Shamokin 7½' 40°51'27"N 76°31'00"W	Trimmers Rock siltstone and sandstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	
409	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 644-0603	(717) 524-7995	quarry Shamokin Shamokin 7½' 40°46'57"N 76°31'18"W	Llewellyn sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid sand for septic systems	For coal-outcrop map of area, see Danilchik and others (1962).
			Perry County			
332	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251	(717) 524-7995	quarry Liverpool Millersburg 7½' 40°33'28"N 76°59'43"W	Pocono sandstone	coarse aggregate	Mining the Mount Carbon and Beckville Members of the Pocono Formation. See Hoskins (1976) for geology.
334	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 567-3197	(717) 238-7312 (717) 567-3198	quarry Newport Newport 7½' 40°28'17"N 77°08'04"W	Trimmers Rock siltstone Brallier siltstone	coarse aggregate approved fine aggregate type B approved antiskid	See Dyson (1963) for geology.
			Pike County			
612	Dingmans Ferry Stone, Inc. P. O. Box 686 Dingmans Ferry, PA 18328 (717) 828-2617	(717) 828-2617	open pit Dingmans Ferry Stone Lake Maskenozha 7½' 41°12'42"N 74°55'03"W	Trimmers Rock sandstone	coarse aggregate fine aggregate	See Sevon and others (1989) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)		
				SANDSTONE (cont.)		
				Pike County (cont.)		
608	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Milford Milford 7½' 41°20'50"N 74°51'44"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	See Sevon and others (1989) for geology.
				Schuylkill County		
516	Middleport Materials, Inc. P. O. Box 189 Telford, PA 18969 (215) 723-1177		quarry Middleport Orwigsburg 7½' 40°43'55"N 76°02'11"W	Pottsville Group sandstone	approved coarse aggregate SRL H, type C approved fine aggregate type A approved antiskid	See Wood (1973) for geology. Mining a weathered sandstone.
518	Pennsy Supply, Inc. P. O. Box 3331 Harrisburg, PA 17105 (717) 233-4511 (717) 754-7508	(717) 238-7312 (717) 754-7858	quarry Summit Stone Friedensburg 7½' 40°34'27"N 76°11'06"W	Trimmers Rock siltstone	approved coarse aggregate SRL H; type C approved fine aggregate type B approved antiskid	
515	Refractory Sand Company, Inc. P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559 (717) 386-4193	(717) 668-5910	quarry Andreas New Tripoli 7½' 40°44'22"N 75°47'32"W	Palmerton sandstone	approved fine aggregate type A approved antiskid refractory sand cement raw material sand for golf-course traps	See Sevon (1970) and Lash and others (1984) for geology. See Berkheiser (1985a) for analysis.
				Somerset County		
218	Airesman, Floyd E. and Randy G. R. D. 4, Box 123-A Berlin, PA 15530 (814) 443-3691	(814) 445-5821	open pit Airesman Murdock 7½' 39°54'21"N 79°03'46"W	Allegheny Group sandstone	sand dimension stone topsoil	Probably mining the Kittanning sandstone of the Allegheny Group.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SANDSTONE (cont.)						
Somerset County (cont.)						
213	Commonwealth Stone, Inc. R. D. 2, Box 112 A Somerset, PA 15501 (814) 443-2808 (814) 629-5664	(814) 445-9683 (814) 629-5666	quarry Pilltown Boswell 7½' 40°09'55"N 79°00'37"W	Homewood sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type A approved antiskid gabion stone rip-rap	Mining the Homewood Sandstone Member of the Pottsville Group.
220	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562 (814) 662-2711	(814) 662-2712	quarry Galley Markleton 7½' 39°45'33"N 79°12'24"W	Burgoon sandstone	approved coarse aggregate SRL E approved antiskid	Practices selective mining; see "Limestone." Burgoon is lowermost rock unit mined. See Flint (1965) and Edmunds (1993) for geology.
221	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562 (814) 662-2711	(814) 662-2712	quarry Rodamer Markleton 7½' 39°45'10"N 79°09'54"W	Burgoon sandstone	approved fine aggregate type A masonry sand concrete sand	
217	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 443-9950	(814) 224-6800 (814) 445-2918	quarry Bakersville Seven Springs 7½' 40°03'57"N 79°15'18"W	Burgoon sandstone Loyalhanna quartzose limestone	approved coarse aggregate SRL E approved fine aggregate type B approved antiskid concrete raw materials rip-rap	Selectively mining the Burgoon sandstone and Loyalhanna limestone. See Atlee (1989) for history. See "Limestone."
215	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 754-4921	(814) 224-6800 (814) 754-5916	quarry Central City Central City 7½' 40°07'13"N 78°47'30"W	Allegheny Group sandstone	coarse aggregate fine aggregate antiskid fine aggregate for concrete landfill leachate zone aggregate masonry sand	Apparently mining sandstone associated with the Kittanning and Clarion coals. See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Somerset County (cont.)			
214	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 754-4921	(814) 224-6800 (814) 754-5916	quarry Ishman Ogletown 7½' 40°07'44"N 78°44'41"W	Allegheny Group sandstone	approved fine aggregate type A fine aggregate for concrete landfill leachate zone aggregate masonry sand	Apparently mining sandstone associated with the Kittanning and Clarion coals. See Atlee (1989) for history.
211	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 754-4921	(814) 224-6800 (814) 754-5916	quarry Ogletown Ogletown 7½' 40°14'18"N 78°41'18"W	Loyalhanna quartzose limestone Mauch Chunk sandstone	coarse aggregate fine aggregate antiskid	See Atlee (1989) for history.
			Susquehanna County			
439	Burns, Don R. D. 1, Box 24 AA New Milford, PA 18834 (717) 465-3058		open pit Burns Great Bend 7½' 41°53'58"N 75°44'05"W	Lock Haven sandstone	approved antiskid flagstone	See "Dimension Stone" for more information.
433	J & C Trucking, Inc. P. O. Box 752 New Milford, PA 18834 (717) 465-3545	(717) 465-3107	quarry J & C Susquehanna 7½' 41°57'30"N 75°31'37"W	Catskill sandstone	rip-rap	
453	State Aggregates, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18431 (610) 866-0932 (717) 222-3193		quarry Clifford Lenoxville 7½' 41°40'12"N 75°37'44"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Susquehanna County (cont.)			
432	Stateline Quarries, Ltd. P. O. Box 533 Vestal, NY 13851-0533 (607) 625-3075	(607) 625-2689	quarry Stateline Friendsville, Pa.-N.Y. 7½' 41°59'36"N 76°06'27"W	Catskill sandstone	coarse aggregate fine aggregate rip-rap	Operation extends into Broome County, New York.
			Tioga County			
296	Cross, Clifford, Jr. P. O. Box 240 Mainesburg, PA 16932 (717) 549-3234		open pit Cross Roseville 7½' 41°45'08"N 76°58'23"W	Catskill sandstone	approved coarse aggregate type C fine aggregate rip-rap	
295	Cross, Greg L. P. O. Box 240 Mainesburg, PA 16932 (717) 549-3234		quarry Hemlock Hill Mansfield 7½' 41°46'21"N 77°00'31"W	Catskill sandstone	coarse aggregate rip-rap	
298	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 324-2514	(610) 253-5734	quarry Blossburg Liberty 7½' 41°37'19"N 77°06'57"W	Huntley Mountain sandstone Burgoon sandstone	approved coarse aggregate type C approved antiskid	
			Venango County			
69	Klapec, Michael J. R. D. 1, Box 10 Oil City, PA 16301 (814) 676-3662	(814) 677-5676	quarry Klapec President 7½' 41°23'24"N 79°32'34"W	Pottsville Group sandstone	coarse aggregate	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Wayne County			
598	Ciccone Excavating, Inc. R. D. 2 Honesdale, PA 18431 (717) 253-0718		quarry Atkinson Hawley 7½' 41°28'09"N 75°11'35"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B	
602	Eureka Stone Quarry Lower State and Pickerton Rds. Chalfont, PA 18914 (215) 822-0593		quarry Sterling sandstone Sterling 7½' 41°21'18"N 75°24'12"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	
597	Keystone Pavement P. O. Box 127 Lake Ariel, PA 18436 (717) 698-5631		quarry Enslin Lake Ariel 7½' 41°28'19"N 75°24'08"W	Catskill sandstone	coarse aggregate fine aggregate antiskid	Mining the Poplar Gap and Packerton Members, undivided.
581	Mahnob, Inc. P. O. Box 248 Honesdale, PA 18431 (717) 253-0693 (717) 224-6835	(717) 253-2505 (717) 224-6686	quarry Eldreds Galilee 7½' 41°41'36"N 75°10'51"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B borrow and general fill	
599	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 698-5631	(610) 253-[illegible]734	quarry Lake Ariel Lake Ariel 7½' 41°28'06"N 75°24'31"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B approved antiskid	Mining the Poplar Gap and Packerton Members of the Catskill Formation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SANDSTONE (cont.)			
			Wyoming County			
459	American Asphalt Paving Company 500 Chase Road Shavertown, PA 18708 (717) 696-1181 (717) 836-4018	(717) 696-3486	quarry Eaton plant Tunkhannock 7½' 41°30'41"N 75°59'09"W	Catskill sandstone	approved coarse aggregate SRL E; type C fine aggregate antiskid	Apparently glacial gravel also is mined at this site and provides a source of approved coarse aggregate. Company also has a source of approved aggregate at Exeter Falls.
461	Wyoming Sand and Stone Company R. D. 2, Box 100 Tunkhannock, PA 18657 (717) 836-2117 (717) 586-6111	(717) 836-6317	open pit Hilltop Ransom 7½' 41°29'00"N 75°48'45"W	Catskill sandstone	approved coarse aggregate SRL E; type C approved fine aggregate type B rip-rap	
			York County			
422	York Silica Sand, Inc. P. O. Box 99 Wrightsville, PA 17368 (717) 252-1584		open pit York Silica Sand Columbia West 7½' 40°00'44"N 76°32'05"W	Antietam quartzite	approved coarse aggregate SRL H approved fine aggregate type A approved antiskid	See Ganis and Hopkins (1984a, 1995) for descriptions.
			SERPENTINITE			
			Lancaster County			
558	Pennsylvania-Maryland Materials 303 Quarry Road Peach Bottom, PA 17563 (717) 548-2147		quarry Rock Springs Conowingo Dam 7½' 39°43'18"N 76°08'56"W	Baltimore Mafic Cmp. serpentinite	approved coarse aggregate SRL M; type C approved antiskid rip-rap	
557	Stoltzfus, D.M., and Son, Inc. P. O. Box 84 Talmage, PA 17580-0084 (717) 656-2411 (717) 548-2192		quarry Cedar Hill Conowingo Dam 7½' 39°43'40"N 76°08'13"W	Baltimore Mafic Cmp. serpentinite	approved coarse aggregate SRL M; type C approved fine aggregate type B approved antiskid railroad ballast	Stone (1932) discussed some serpentinite quarries in Lancaster County. See Lapham (1960) for a description of mineralogy and geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SHALE			
			Carbon County			
505	Smith Partnership c/o Franzosa, R. D. 4, Box 4231 Drums, PA 18222-9404 (717) 454-5256		open pit Albrightsville Blakeslee 7½' 41°01'50"N 75°34'59"W	Catskill shale	road-base material	Mining soft red shale and hard red and gray shale of the Duncannon Member.
			Huntingdon County			
259	Brown, Paul W. HCR 61, Box 557 Mill Creek, PA 17060 (717) 483-6904		open pit Brown Newton Hamilton 7½' 40°29'10"N 77°51'02"W	Reedsville shale	driveway base	
			Luzerne County			
502	Bonner Shale Company Box 410-C, Humboldt Hazleton, PA 18201 (717) 384-3291	(717) 384-1276	open pit Bonner Shale Conyngham 7½' 40°55'20"N 76°02'11"W	Mauch Chunk shale	approved antiskid	
			Lycoming County			
299	Logue, George E., Inc. P. O. Box 249 Montoursville, PA 17754 (717) 368-2636	(717) 368-1722	quarry Freedom Road Cogan Station 7½' 41°15'51"N 77°00'33"W	Brallier shale	construction aggregate	Rock is described by the producer as durable siltstone.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SHALE (cont.)			
			Northampton County			
643	Grand Central Sanitary Landfill, Inc. 1963 Pen Argyl Road Pen Argyl, PA 18072 (610) 863-6057	(610) 863-4153	quarry Pa. Blue Mountain Wind Gap 7½' 40°51'11"N 75°15'35"W	Martinsburg shale	approved coarse aggregate type C approved antiskid dense graded aggregate landfill construction stone filtration stone	
			Somerset County			
212	Shaffer Brothers Coal Company, Inc. Jay Street Windber, PA 15963 (814) 467-7972		open pit Shaffer Brothers Windber 7½' 40°12'56"N 78°47'43"W	Allegheny Group shale	construction aggregate borrow and general fill	Mining the Kittanning shale and claystone.
			Wayne County			
585	Schaefer, Fred HC 62, Box 678 Honesdale, PA 18431 (717) 253-0797		open pit Schaefer White Mills 7½' 41°36'33"N 75°13'15"W	Catskill shale	construction aggregate	Producing red shale aggregate for roadways and driveways.
587	Skinner, Duane E. HC 62, Box 832 Honesdale, PA 18431 (717) 729-7942	(717) 729-7942	open pit Skinner Excavating White Mills 7½' 41°34'26"N 75°13'06"W	Catskill shale	aggregate for driveways borrow and general fill	
591	Suhosky, Robert J. R. D. 2, Box 360 Honesdale, PA 18431 (717) 253-0346		open pit Suhosky Honesdale 7½' 41°33'22"N 75°17'02"W	Catskill shale	fine aggregate borrow and general fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
CONSTRUCTION AGGREGATE (cont.)						
SLAG						
Allegheny County						
117	Heights Plaza Materials Springhill Road Natrona Heights, PA 15065 (412) 224-6113	(412) 224-3555	slag bank Heights Plaza New Kensington 7½' 40°37'12"N 79°43'20"W	slag	approved coarse aggregate type C fine aggregate	Also quarrying the Glenshaw sandstone.
124	Lafarge Construction Materials 6715 Tippecanoe Road, Bldg. C Canfield, OH 44406 (216) 533-3338 (412) 655-1490	(216) 533-0922 (412) 653-5524	slag bank Brown Reserve Glassport 7½' 40°20'34"N 79°56'52"W	slag	approved coarse aggregate type C fine aggregate	Operation at 935 Mountain View Drive, West Mifflin, PA 15122.
123	Lafarge Construction Materials 6715 Tippecanoe Road, Bldg. C Canfield, OH 44406 (216) 533-3338 (412) 462-6088	(216) 533-0922 (412) 462-1443	slag bank Duquesne Glassport 7½' 40°21'32"N 79°55'09"W	slag	approved coarse aggregate SRL H fine aggregate approved antiskid	Operation at 4810 Buttermilk Hollow Road, West Mifflin, PA 15122.
Beaver County						
108	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 847-3381	(215) 956-5588 (412) 847-7844	slag bank Beaver Falls Beaver Falls 7½' 40°49'35"N 80°19'15"W	slag	construction aggregate antiskid fill railroad ballast	
113	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 643-1600	(215) 956-5588 (412) 643-5156	slag bank Midland Midland 7½' 40°38'30"N 80°28'00"W	slag	approved coarse aggregate type C fine aggregate antiskid fill railroad ballast	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	CONSTRUCTION AGGREGATE (cont.)					
	SLAG (cont.)					
	Beaver County (cont.)					
114	Jerart, Inc. 3701 Duss Avenue Baden, PA 15005 (412) 869-8844		slag bank Jerart Ambridge 7½' 40°37'17"N 80°13'41"W	slag	construction aggregate	
111	PMAC, Ltd. 4023 Fourth Avenue Beaver Falls, PA 15010 (412) 847-7116		slag bank ARC Steel Beaver Falls 7½' 40°47'16"N 80°20'25"W	slag	construction aggregate	Part of a steel-reclamation operation.
	Berks County					
533	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (610) 208-2505	(215) 956-5588 (610) 208-3028	slag bank Reading Reading 7½' 40°22'11"N 75°56'25"W	slag	construction aggregate antiskid fill soil neutralization and conditioning	Company claims product can replace limestone for neutralization and soil conditioning.
	Cambria County					
198	Pheasant and Shearer 204 Atlantic Street Johnstown, PA 15904 (814) 266-7548 (814) 535-2125		open pit Pheasant and Shearer Johnstown 7½' 40°22'11"N 78°53'11"W	slag	approved coarse aggregate type C	
199	Waylite Corporation R. D. 5, Easton Road Bethlehem, PA 18015 (610) 838-6500 (814) 535-1911	(610) 838-2331	slag bank Parkhill Geistown 7½' 40°21'52"N 78°51'54"W	slag	approved coarse aggregate type C fine aggregate approved antiskid	

Map No.	Name and Address	Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				CONSTRUCTION AGGREGATE (cont.)			
				SLAG (cont.)			
				Chester County			
567	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454	(215) 956-5500 (610) 384-2894	(215) 956-5588 (610) 384-0334	slag bank Coatesville Coatesville 7½' 39°58'05"N 75°50'32"W	slag	approved coarse aggregate type C approved fine aggregate type B railroad ballast	
				Dauphin County			
419	Hempt Brothers, Inc. 205 Creek Road Camp Hill, PA 17011	(717) 737-3411 (717) 939-9586		slag bank Steelton Steelton 7½' 40°13'21"N 76°48'54"W	slag	coarse aggregate	Dumps of slag produced by the Bethlehem Steel Corp. Steelton complex.
				Lawrence County			
82	B & P Slag Corporation 133 East Wallace Avenue New Castle, PA 16101	(412) 658-4003		slag bank B & P Bessemer 7½' 40°59'51"N 80°24'39"W	slag	coarse aggregate	
85	Elliott, R. W., and Sons, Inc. R. D. 1, Box 242 Ellwood City, PA 16117	(412) 752-9082 (412) 652-2999	(412) 752-9963 (412) 652-2639	slag bank Elliott New Castle South 7½' 40°57'28"N 80°22'24"W	slag	construction aggregate	
				Northampton County			
652	Waylite Corporation R. D. 5, Easton Road Bethlehem, PA 18015	(610) 838-6500	(610) 838-2331	slag bank Bethlehem Hellertown 7½' 40°36'30"N 75°18'42"W	slag	approved coarse aggregate SRL H; type C approved fine aggregate types A, B approved antiskid	

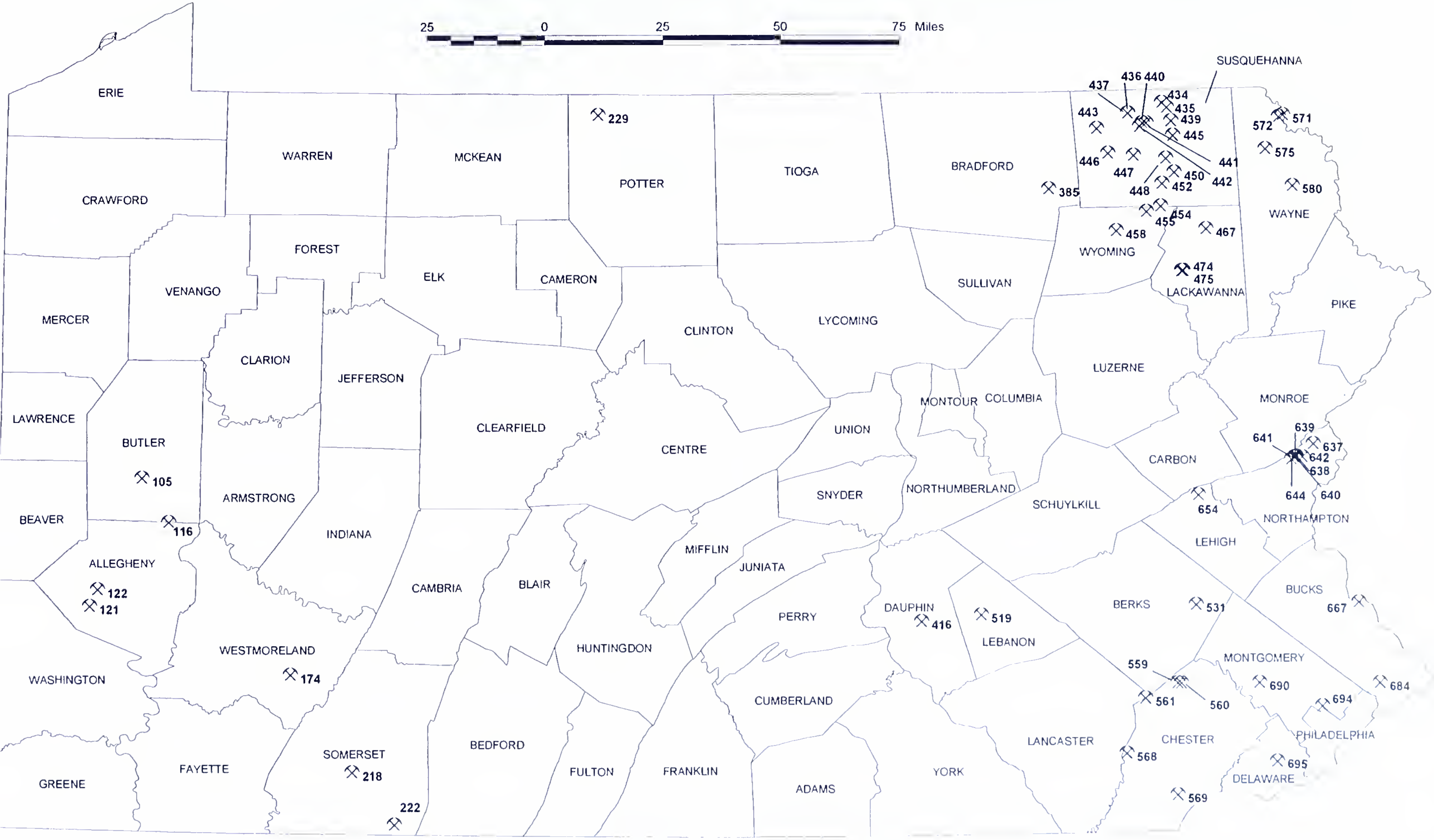

Figure 13. Locations of reporting producers of dimension stone. The majority mine sandstone, including "bluestone" in northeastern Pennsylvania. Those in Northampton and Lehigh Counties mine slate. Diabase is mined at locations 559 and 560, limestone at 519, gneiss at 694 and 695, and argillite at 690. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			CONSTRUCTION AGGREGATE (cont.)			
			SLAG (cont.)			
			Westmoreland County			
175	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 929-4515	(215) 956-5588 (412) 929-2726	slag bank Rostraver Township Donora 7½' 40°09'05"N 79°50'10"W	slag	approved coarse aggregate type C approved antiskid fill railroad ballast	
			DIMENSION STONE			
			ARGILLITE AND HORNFELS			
			Montgomery County			
690	Burdo Brothers Quarry 29 North Washington Avenue Bala Cynwyd, PA 19004 (610) 664-5547		quarry Burdo Brothers Collegeville 7½' 40°09'54"N 75°25'49"W	Lockatong argillite	dimension stone, irregular	May also be producing from Brunswick Formation siltstones.
			DIABASE			
			Chester County			
560	Pennsylvania Granite Corporation P. O. Box 510 St. Peters, PA 19470 (610) 469-9674		quarry Cherry Hill Pottstown 7½' 40°10'10"N 75°44'49"W	York Haven diabase	dimension stone industrial surface plates	Trade name is "Cherry Hill Black." Blocks and slabs. See Wood (1980) for geology.
559	Pennsylvania Granite Corporation P. O. Box 510 St. Peters, PA 19470 (610) 469-9674		quarry Fox Hill Elverson 7½' 40°10'14"N 75°45'38"W	York Haven diabase	dimension stone	Trade name is "American Black." High-strength diabase blocks and slabs. Only active diabase dimension-stone producer in state. See Stone (1932) for description, and Wood (1980) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			DIMENSION STONE (cont.)			
			GNEISS AND RELATED ROCKS			
			Delaware County			
695	Media Quarry Company P. O. Box 667 Media, PA 19063 (610) 566-6667	(610) 566-8289	quarry Media Lansdowne 7½' 39°55'22"N 75°22'00"W	Wissahickon mica schist	building stone	See Stone (1932) for a description of Delaware County dimension-stone sources.
			Montgomery County			
694	Marcolina Brothers, Inc. 133 E. Mermaid Lane Philadelphia, PA 19118 (215) 247-2252		quarry Hillcrest Germantown 7½' 40°05'19"N 75°10'39"W	Wissahickon micaceous gneiss	dimension stone building stone flagstone	Stone (1932) reported mining of mostly micaceous schist with some gneiss and fine-grained hornblende schist.
			LIMESTONE			
			Lebanon County			
519	Wampler, Mark W. R. D. 2, Box 358 Annville, PA 17003 (717) 865-3533		quarry Wampler Indiantown Gap 7½' 40°23'17"N 76°32'43"W	Hamburg sequence limestone	flagstone	
			SANDSTONE			
			Allegheny County			
122	Collier Stone Company 80 Noblestown Road Carnegie, PA 15106 (412) 276-7300 (412) 921-2230	(412) 276-0942 (412) 922-6284	quarry Kisow Pittsburgh West 7½' ~40°27'05"N ~80°05'57"W	Monongahela Group sandstone	dimension stone construction aggregate rip-rap gabion stone	See "Construction Aggregate."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
DIMENSION STONE (cont.)						
SANDSTONE (cont.)						
Allegheny County (cont.)						
121	Collier Stone Company 80 Noblestown Road Carnegie, PA 15106 (412) 276-7300	(412) 276-0942	quarry McShane Oakdale 7½' 40°23'59"N 80°07'48"W	Monongahela Group sandstone	dimension stone construction aggregate rip-rap gabion stone	Reported to be producing from the Morgantown sandstone. See "Construction Aggregate."
116	Collier Stone Company 80 Noblestown Road Carnegie, PA 15106 (412) 276-7300	(412) 276-0942	quarry North Allegheny Curtisville 7½' ~40°40'00"N ~79°49'00"W	Glenshaw sandstone	dimension stone construction aggregate rip-rap gabion stone	See "Construction Aggregate."
Berks County						
531	Rolling Rock Building Stone, Inc. R. D. 4 Boyertown, PA 19512 (610) 987-6226	(610) 987-9779	open pit Rolling Rock Manatawny 7½' 40°24'31"N 75°40'49"W	Hardyston quartzite Quaternary colluvium	building stone fieldstone	Natural and split-face building stone. Three fieldstone-stripping areas are operated.
Bradford County						
385	Preston, John R. D. 1, Box 20 Wyalusing, PA 18853 (717) 746-9247	(717) 746-3309	quarry Preston Laceyville 7½' 41°42'02"N 76°14'26"W	Catskill sandstone	flagstone	"Bluestone."
Bucks County						
667	Delaware Quarries Rt. 32 Lumberville, PA 18933 (215) 297-5647		quarry Lumberville Lumberville 7½' 40°24'10"N 75°01'13"W	Stockton sandstone	veneer and building stone rubble ashlar, hand-cut fieldstone construction aggregate	Lumberville quarry established in 1852. Reported to have six other quarries. See Stone (1932) for descriptions of Lumberville quarries.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
DIMENSION STONE (cont.)						
SANDSTONE (cont.)						
Bucks County (cont.)						
684	Langhorne Stone Company 1868 West Super Highway Parkland, PA 19047 (215) 297-5496 (215) 757-2208		quarry Langhorne Langhorne 7½' 40°09'16"N 74°56'37"W	Chickies sandstone	building stone	
Butler County						
105	Raducz Stone Corporation 284 Rockdale Road Butler, PA 16001 (412) 352-3984		quarry Butler Butler 7½' 40°48'04"N 79°55'41"W	Glenshaw sandstone	dimension stone	
Chester County						
568	Atglen Quarry, Inc. 21 Riversedge Drive Norristown, PA 19403 (610) 539-8050		quarry Atglen Parkesburg 7½' 39°57'26"N 75°58'15"W	Chickies sandstone	dimension stone	
570	D'Amico, Anthony 1701 Baltimore Pike Avondale, PA 19311 (610) 268-0115	(610) 268-0738	quarry D'Amico West Grove 7½' 39°49'39"N 75°46'17"W	Setters sandstone	building stone retaining-wall stone patio stone	See Stone (1932) for description and Bascom and Stose (1932) for geology.
569	Rotunno Stone Yard 163 West Evergreen Street West Grove, PA 19390 (610) 268-3451		quarry Rotunno Stone Yard West Grove 7½' ~39°49'39"N ~75°46'19"W	Setters quartzite	building stone flagging	Business is at 1745 Baltimore Pike, Avondale, Pa. Buys and sells other types of stone, including limestone, granite, and sandstone. See Stone (1932) for description of quarry and Bascom and Stose (1932) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			DIMENSION STONE (cont.)			
			SANDSTONE (cont.)			
			Chester County (cont.)			
561	Welsh Mountain Building Stone, Inc. 227 Isabella Street Norristown, PA 19401 (610) 275-4421 (610) 273-2681		quarry Welsh Mountain Morgantown 7½' 40°07'32"N 75°53'28"W	Chickies sandstone	building stone	
			Dauphin County			
416	Blue Mountain Building Stone Co. 5912 Linglestown Road Harrisburg, PA 17112 (717) 671-8711 (717) 599-5702	(717) 541-9489	quarry Blue Mountain Enders 7½' 40°22'13"N 76°47'08"W	Mahantango sandstone	dimension stone guillotine-split random ashlar landscaping boulders veneer decorative gravel	Varicolored, including white, tan, rust, and brown. Probably mining Montebello or equivalent plus Silurian and Devonian sandstone float and colluvium.
			Lackawanna County			
475	Godino's West Mountain Stone Quarry 703 Newton Road Scranton, PA 18504 (717) 346-2882		quarry West Mountain Scranton 7½' 41°26'33"N 75°42'25"W	Spechty Kopf sandstone	building stone wall stone	See Stone (1932) for description of the Joe Godino quarry.
474	Scranton Materials 819 Newton Road Scranton, PA 18504 (717) 961-8586		quarry West Mountain Scranton 7½' 41°26'37"N 75°42'04"W	Spechty Kopf sandstone	building stone sand-mound sand construction aggregate rip-rap	See Stone (1932) for description of West Mountain quarries.
467	Wargo, John R. D. 2, Box 161 Jermyn, PA 18433 (717) 254-6945		quarry Wargo Carbondale 7½' 41°34'07"N 75°36'10"W	Catskill sandstone	flagstone construction aggregate fieldstone	"Bluestone."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			DIMENSION STONE (cont.)			
			SANDSTONE (cont.)			
			Potter County			
229	Blauvelt, Paul R. D. 1, Box 1178 Shinglehouse, PA 16748 (814) 698-2256		open pit Blauvelt Oswayo 7½' ~41°55'58"N ~78°05'00"W	Catskill sandstone	flagstone	"Bluestone." Available in blue and green.
			Somerset County			
218	Airesman, Floyd E. and Randy G. R. D. 4, Box 123-A Berlin, PA 15530 (814) 443-3691	(814) 445-5821	open pit Airesman Murdock 7½' 39°54'21"N 79°03'46"W	Allegheny Group sandstone	cut stone fireplace stone sand topsoil	Probably mining the Kittanning sandstone of the Allegheny Group.
222	Allegheny Mountain Flagstone Quarries P. O. Box 152 Ellerslie, MD 21529 (301) 777-5059		quarry Allegheny Mountain Frostburg 7½' 39°44'58"N 78°53'27"W	Pocono sandstone	flagstone	Produces four thicknesses of flagstone.
			Susquehanna County			
442	Baker, Frank 71 Broome Street Binghamton, NY 13903 (607) 724-3547		quarry Baker Franklin Forks 7½' 41°53'04"N 75°51'46"W	Catskill sandstone	flagstone	"Bluestone."
443	Birchard, Courtland R. D. 5, Box 113 Montrose, PA 18801 (717) 553-2421		quarry Birchard Friendsville, Pa.-N.Y. 7½' 41°52'47"N 76°02'22"W	Catskill sandstone	patio stone stepping stones ornamental items novelty items	"Bluestone." Products include lamps, bookends, paperweights, key chains, candle holders, plaques, clocks, desk sets, telephone pads, sundials, signs, and chessboards. Also does custom work.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				DIMENSION STONE (cont.)		
				SANDSTONE (cont.)		
				Susquehanna County (cont.)		
437	Bolles, Thomas J. R. D. 2, Box 73J Hallstead, PA 18822 (717) 278-3911		quarry Bolles Laurel Lake 7½' 41°55'32"N 75°54'41"W	Catskill sandstone	treads	"Bluestone."
439	Burns, Don R. D. 1, Box 24 AA New Milford, PA 18834 (717) 465-3058		open pit Burns Great Bend 7½' 41°53'58"N 75°44'05"W	Lock Haven sandstone	flagstone antiskid	Can cut to any size. Stone (1932) described the "New Milford" lower sandstone as 20 ft. thick and exposed 70 ft. above tracks at New Milford.
435	CJ Flagstone R. D. 1, Box 161-T Uniondale, PA 18470 (717) 222-9684		quarry CJ Flagstone Franklin Forks 7½' 41°56'28"N 75°45'07"W	Catskill sandstone	flagstone	"Bluestone."
449	Compton, David P. R. D. 1, Box 1080 Hop Bottom, PA 18824 (717) 942-6359		quarry Compton Montrose East 7½' 41°47'10"N 75°45'36"W	Catskill sandstone	flagstone for treads flagstone for pattern	"Bluestone."
436	Kilmer, Cecil R. D. 1, Box 62 Nicholson, PA 18446 (717) 942-6546		quarry No. 1 Laurel Lake 7½' 41°55'34"N 75°54'38"W	Catskill sandstone	flagstone	"Bluestone." See Stone (1932) for a description of the Susquehanna County flagstone industry. Operating two quarries in Susquehanna County.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				DIMENSION STONE (cont.)		
				SANDSTONE (cont.)		
				Susquehanna County (cont.)		
448	Kilmer, Cecil R. D. 1, Box 62 Nicholson, PA 18446 (717) 942-6546		quarry No. 2 Montrose East 7½' 41°47'11"N 75°45'36"W	Catskill sandstone	flagstone	"Bluestone." See Stone (1932) for a description of the Susquehanna County flagstone industry. Operating two quarries in Susquehanna County.
441	Kilmer, Douglas G. R. D. 1, Box 85-K Union Dale, PA 18470 (717) 222-4404		quarry Douglas Kilmer Franklin Forks 7½' 41°53'41"N 75°50'15"W	Catskill sandstone	flagstone	"Bluestone."
434	Kilmer, William R. D. 1, Box 1077 Nicholson, PA 18446 (717) 942-4202		quarry Taylor Franklin Forks 7½' 41°57'21"N 75°46'15"W	Catskill sandstone	flagstone	"Bluestone."
452	Kozlowski, Ed R. D. 2, Box 66 Kingsley, PA 18826 (717) 289-4310		quarry Kozlowski Hop Bottom 7½' 41°42'41"N 75°46'36"W	Catskill sandstone	dimension stone	"Bluestone."
446	Lake, Charles M. and Ann P. O. Box 141 South Montrose, PA 18843 (717) 278-1535		open pit Lake Montrose West 7½' 41°48'15"N 75°59'45"W	Catskill sandstone	flagstone	"Bluestone."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				DIMENSION STONE (cont.)		
				SANDSTONE (cont.)		
				Susquehanna County (cont.)		
447	Reeves, Craig R. P. O. Box 190 South Montrose, PA 18843 (717) 278-2375		quarry Reeves Montrose West 7½' 41°47'44"N 75°53'22"W	Catskill sandstone	flagstone	"Bluestone."
445	Smith, Timothy Mark R. D. 3, Box 329-E Montrose, PA 18801 (717) 663-2338		quarry Timothy Mark Smith Harford 7½' 41°51'17"N 75°43'45"W	Catskill sandstone	dimension stone (pattern)	"Bluestone."
440	Wester-Simons, Flo R. D. 3, Box 82, Olszewski Road Montrose, PA 18801 (717) 278-3998		quarry Wester-Simons Franklin Forks 7½' 41°53'44"N 75°51'11"W	Catskill sandstone	flagstone	"Bluestone." As of 1995, has not operated in two years. Searching for an operator.
450	Wilbur, Lee A., and Son R. D. 1, Box 328 Kingsley, PA 18826 (717) 434-2720	(717) 434-2720	quarry Morgan Hill Lenoxville 7½' 41°44'35"N 75°43'37"W	Catskill sandstone	flagstone steps treads veneer wall-stone	"Bluestone." See Stone (1932) for a description of the Susquehanna County flagstone industry.
				Wayne County		
580	Augello, Charles R. R. D. 3, Box 2370 Honesdale, PA 18431 (717) 253-3998		open pit Augello Galilee 7½' 41°41'42"N 75°14'29"W	Catskill sandstone	dimension stone borrow and general fill	"Bluestone." Apparently also mining red shale as borrow and fill.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			DIMENSION STONE (cont.)			
			SANDSTONE (cont.)			
			Wayne County (cont.)			
575	Gustin, Paul R. P. O. Box 105 Preston Park, PA 18455 (717) 798-2460	(717) 798-2241	quarry Gustin Lake Como 7½' ~41°48'28"N ~75°21'04"W	Catskill sandstone	dimension stone	"Bluestone."
571	Tompkins Bluestone Company, Inc. P. O. Box 776 Hancock, NY 13783 (607) 637-5222	(607) 637-5223	quarry Tompkins East Hancock 7½' 41°54'38"N 75°16'28"W	Catskill sandstone	dimension stone flagstone	"Bluestone." Producing dimensional flagstone and sawn rock from a number of quarries in the area.
572	Tompkins Bluestone Company, Inc. P. O. Box 776 Hancock, NY 13783 (607) 637-5222	(607) 637-5223	quarry Tompkins West Hancock 7½' 41°54'18"N 75°17'28"W	Catskill sandstone	dimension stone flagstone	"Bluestone." Producing dimensional flagstone and sawn rock from a number of quarries in the area.
			Westmoreland County			
174	Neiderhiser, Wilbert M. 81 Stom Road Ligonier, PA 15658 (412) 593-7387		open pit Neiderhiser Stahlstown 7½' 40°12'06"N 79°18'55"W	Casselman sandstone	flagstone borrow and general fill	Mining both sandstone for flagstone and shale for borrow and general fill.
			Wyoming County			
454	Brainard, Frank L. R. D. 1, Box 206A Kingsley, PA 18826 (717) 222-3513		quarry Brainard Flagstone Hop Bottom 7½' ~41°38'29"N ~75°47'05"W	Catskill sandstone	flagstone	"Bluestone."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			DIMENSION STONE (cont.)			
			SANDSTONE (cont.)			
			Wyoming County (cont.)			
458	Custer, Paul R. R. D. 3, Box 174 Tunkhannock, PA 18657 (717) 836-1370		quarry Custer Tunkhannock 7½' 41°34'04"N 75°58'11"W	Catskill sandstone	flagstone	"Bluestone." Red flagstone also available. See Stone (1932) for a description of quarries in Wyoming County.
455	Smarkusky, William R. D. 2, Box 2541 Nicholson, PA 18446 (717) 942-6620	(717) 942-6916	quarry Smarkusky Hop Bottom 7½' 41°37'32"N 75°50'34"W	Catskill sandstone	flagstone	"Bluestone."
			SLATE			
			Lehigh County			
654	Penn Big Bed Slate Company, Inc. 8450 Brown Street Slatingdon, PA 18080 (610) 767-4601	(610) 767-9252	quarry Manhattan Slatedale 7½' 40°44'56"N 75°39'36"W	Pen Argyl Member slate	structural slate flagging, sills, and treads roofing slate blackboards tiles and panels turkey calls	Mining the Pen Argyl Member of the Martinsburg Formation. See Behre (1933) and Berkheiser (1984, 1985b) for a description of the geology and mining.
			Northampton County			
642	American Bangor Slate Company P. O. Box 183 Pen Argyl, PA 18072 (610) 863-4172		quarry American Bangor Bangor 7½' 40°51'29"N 75°13'57"W	Pen Argyl Member slate	flooring slate flagstone structural slate roofing slate	Mining the Pen Argyl Member of the Martinsburg Formation. See Davis and others (1967) for geology; Behre (1933) and Berkheiser (1984, 1985b) for descriptions of the operation.
637	Capozzolo Brothers Slate Box 1342, Ridge Road Bangor, PA 18013 (610) 588-7702	(610) 588-3971	quarry Capozzolo Brothers Stroudsburg 7½' 40°53'53"N 75°11'10"W	Pen Argyl Member slate	flagstone floor tile - pattern (ribbon) gift items (clocks, etc.)	Mining the Pen Argyl Member of the Martinsburg Formation. See Behre (1933) for history and mining, Epstein (1973) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				DIMENSION STONE (cont.)		
				SLATE (cont.)		
				Northampton County (cont.)		
638	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry A. Dally and Sons Wind Gap 7½' 40°51'40"N 75°15'23"W	Pen Argyl Member slate	structural slate roofing slate electrical slate billiard and blackboard slate flooring and flagstone slate	Mining the Pen Argyl Member of the Martinsburg Formation. Operating five quarries and at least six milling operations in the area. See Behre (1933) and Berkheiser (1984, 1985b).
641	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry Diamond Slate Wind Gap 7½' 40°51'29"N 75°16'00"W	Pen Argyl Member slate	structural slate billiard-table tops blackboards electrical boards roofing and flagging	Mining the Pen Argyl Member of the Martinsburg Formation. Products include treads, sills, paneling, fireplace units, bathroom partitions, lab sinks. Subsidiary: Diamond Slate Co., P.O. Box 5, Pen Argyl, PA 18072
639	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry Doney No. 1 Wind Gap 7½' 40°51'36"N 75°15'45"W	Pen Argyl Member slate	structural slate billiard-table tops blackboards roofing flagging	Mining the Pen Argyl Member of the Martinsburg Formation. Products include treads, sills, paneling, fireplace units, bathroom partitions, lab sinks. Subsidiary: Doney Slate Co., P.O. Box 5, Pen Argyl, PA 18072
640	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry Doney No. 2 Wind Gap 7½' 40°51'33"N 75°15'39"W	Pen Argyl Member slate	structural slate billiard-table tops blackboards roofing flagging	Mining the Pen Argyl Member of the Martinsburg Formation. Products include treads, sills, paneling, fireplace units, bathroom partitions, lab sinks. Subsidiary: Doney Slate Co., P. O. Box 5, Pen Argyl, PA 18072
644	Williams and Sons Slate and Tile, Inc. 6596 Sullivan Trail Wind Gap, PA 18091 (610) 863-4161	(610) 863-8128	quarry Williams and Sons Wind Gap 7½' 40°51'07"N 75°16'39"W	Pen Argyl Member slate	structural slate roofing and flooring treads and risers window sills and mantles flagging	Mining the Pen Argyl Member of the Martinsburg Formation. See Behre (1933) for "Albion Superior Quarry."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
FILLERS						
ARGILLITE AND HORNFELS						
Bucks County						
677	Better Materials Corporation Swamp Road and Route 232 Penns Park, PA 18943 (215) 598-3152	(215) 598-8363	quarry Penns Park Buckingham 7½' 40°15'34"N 75°00'32"W	Brunswick shale Lockatong argillite	mineral filler railroad ballast construction aggregate rip-rap	See Willard and others (1959) for geology.
DOLOMITE						
Lancaster County						
555	Compass Quarries, Inc. 47 McIlvaine Road Paradise, PA 17562 (717) 442-4191	(717) 442-8729	quarry Compass Gap 7½' 39°59'47"N 76°05'21"W	Vintage dolomite	fillers and extenders pulverized dolomite for agriculture construction aggregate high-magnesium dolomite	See Miller (1934), "Bellemont Quarries," for description and chemical analysis.
York County						
426	Baker Refractories P. O. Box 1189 York, PA 17405 (717) 848-1501 (717) 792-3683	(717) 848-2294 (717) 792-2309	quarry York dolomite West York 7½' 39°56'25"N 76°48'40"W	Ledger dolomite	fillers pulverized dolomite for agriculture refractory products construction aggregate dead-burned dolomite landfill clay	See Stose and Jonas (1939) for geology, Hopkins (1985a, b) for description, Ganis and Hopkins (1984b), Hopkins and Ganis (1990), and Taylor and Hopkins (1990) for geology and description. Less than 1 percent insoluble minerals (Ganis and Hopkins, 1995).
LIMESTONE						
Northumberland County						
412	Meckley's Limestone Products, Inc. R. D. 1, Box 950 Herndon, PA 17830 (717) 758-3001	(717) 758-2400	quarry Mandata Pillow 7½' 40°40'28"N 76°50'06"W	Keyser limestone Tonoloway limestone	fillers pulverized limestone for agriculture carbonate for SO2 absorption construction aggregate	See Faill and others (1973) and Hoskins (1976) for description, geology, and analyses. Operator custom blends and grinds. See Meckley (1996) for a perspective on the company's history.

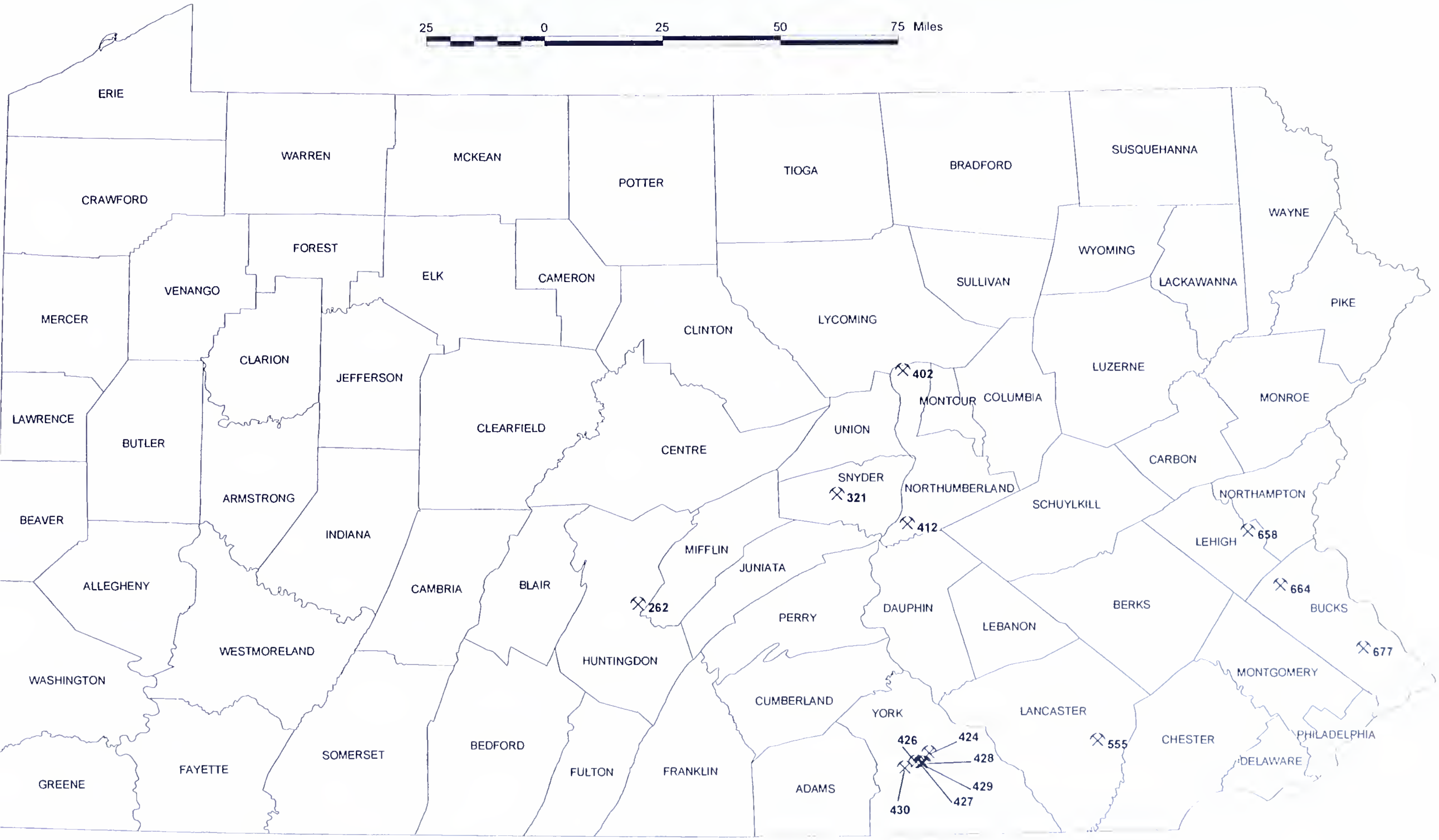

Figure 14. Locations of reporting producers of fillers. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			FILLERS (cont.)			
			LIMESTONE (cont.)			
			Snyder County			
321	National Limestone Quarry, Inc. P. O. Box 397 Middleburg, PA 17842 (717) 837-1635		quarry Paxtonville Middleburg 7½' 40°46'01"N 77°07'10"W	Keyser limestone Tonoloway limestone	fillers for fertilizer construction aggregate pulverized limestone for agriculture	See O'Neill (1964) for analysis.
			York County			
427	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Consolidated West York 7½' 39°56'16"N 76°47'35"W	Kinzers limestone	fillers agricultural lime poultry grit construction aggregate	Producing fillers for whiting, plastics, rubber, ceramics, health products, and construction. Also producing landfill covers and liners. See "Shale."
429	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Ensminger West York 7½' 39°56'14"N 76°47'20"W	Kinzers limestone	fillers agricultural lime poultry grit construction aggregate	Producing fillers for whiting, plastics, rubber, ceramics, health products, and construction. Also producing landfill covers and liners. See "Shale." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990).
424	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Roosevelt West York 7½' 39°58'04"N 76°45'34"W	Kinzers limestone	fillers agricultural lime poultry grit	Producing fillers for whiting, plastics, rubber, ceramics, health products, and construction. See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				FILLERS (cont.)		
				LIMESTONE (cont.)		
				York County (cont.)		
428	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Williams West York 7½' 39°56'15"N 76°46'58"W	Kinzers limestone	fillers agricultural lime poultry grit construction aggregate	Producing fillers for whiting, plastics, rubber, ceramics, health products, and construction. Also producing landfill covers and liners. See "Shale." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990).
430	Medusa Mineral Company Biesecker Road Thomasville, PA 17364-0220 (717) 792-2631 (717) 792-2631	(717) 792-3963	underground Thomasville West York 7½' 39°55'18"N 76°51'24"W	Kinzers limestone	fillers, extenders, whiting mineral foods pulverized limestone for agriculture fluxstone cement and glass manufacture high-calcium limestone	Specializes in micron-size particles for fillers. See Cloos (1968) and Ganis and Hopkins (1995) for geologic description, O'Neill (1964) for analysis, and Berkheiser (1983) for whiting potential.
				SANDSTONE		
				Huntingdon County		
262	US Silica Company P. O. Box 187 Berkeley Springs, WV 25411 (304) 258-2500 (814) 542-2561	(304) 258-8293 (814) 542-4350	quarry US Silica Keystone Mount Union 7½' 40°25'50"N 77°55'15"W	Ridgeley sandstone	fillers pottery sand enamel sand abrasive sand foundry and molding sand glass sand	Mining the "Oriskany" sandstone. See Berkheiser (1985a) for analysis and Fettke (1919) and Shuffleharger (1978) for descriptions. Formerly operated by Pennsylvania Glass Sand Corporation.
				SHALE		
				Bucks County		
664	American Olean Tile Company 1000 Cannon Avenue Lansdale, PA 19446 (215) 855-1111		open pit Docktor-Johnson Quakertown 7½' 40°27'38"N 75°20'14"W	Brunswick shale	fillers	Captive source of shale and clay for manufacturing plants.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			FILLERS (cont.)			
			SHALE (cont.)			
			Northumberland County			
402	Ulrich, Bowman J., Jr. 200 Liberty Street Watsontown, PA 17777 (717) 538-2380		open pit B.J. Ulrich Muncy 7½' 41°08'45"N 76°50'40"W	Mahantango shale	fillers and extenders borrow and general fill	See Faill (1979) for geology.
			SLAG			
			Lehigh County			
658	Celotex Corporation P. O. Box 663 Pittston, PA 18640 (717) 388-6131	(717) 388-2003	slag bank Fullerton Catasauqua 7½' 40°37'54"N 75°27'51"W	slag	fillers in acoustic tile borrow and general fill	
			FLUXSTONE			
			DOLOMITE			
			Chester County			
565	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 647-4094	(215) 884-1465 (610) 251-0764	quarry Catanach Malvern 7½' 40°04'07"N 75°32'39"W	Ledger dolomite	fluxstone construction aggregate pulverized dolomite for agriculture high-magnesium dolomite	
			Lebanon County			
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Ontelaunee dolomite Annville limestone	fluxstone railroad ballast construction aggregate	Stripping Ontelaunee to mine Annville. See "Limestone." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.

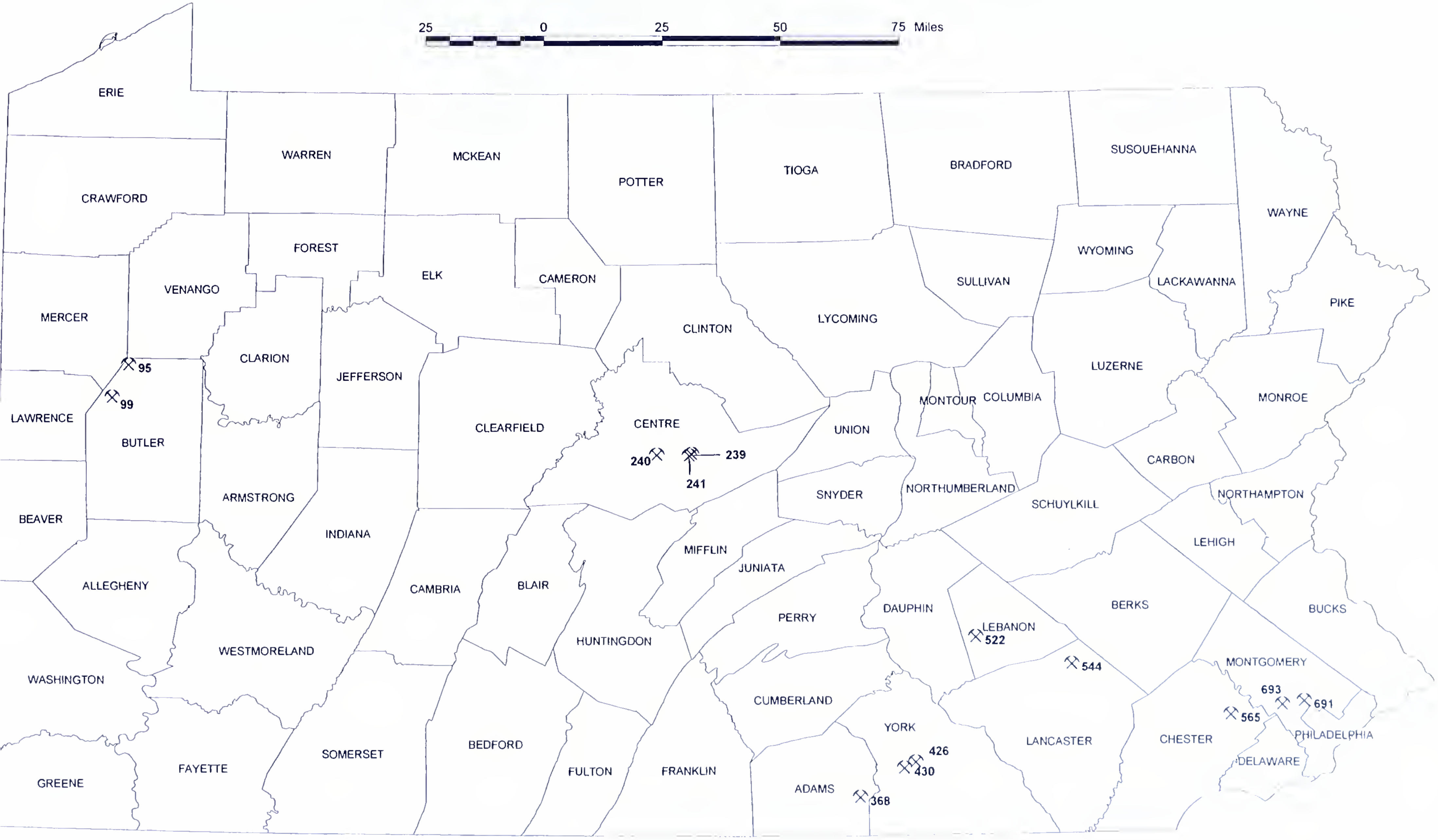

Figure 15. Locations of reporting producers of limestone and dolomite for fluxstone. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			FLUXSTONE (cont.)			
			DOLOMITE (cont.)			
			Montgomery County			
691	Corson Lime Company 500 Stenton Ave. Plymouth Meeting, PA 19462 (610) 828-4300 (800) 267-7661	(610) 828-5696	quarries Corson Lime Germantown 7½' 40°06'18"N 75°14'49"W	Ledger dolomite	fluxstone for metal industry metallurgical lime carbonate for agricultural lime high-magnesium dolomite construction aggregate	See "Lime." See O'Neill (1964) for analysis.
693	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 279-6840	(215) 884-1465 (610) 279-9286	quarry McCoy Norristown 7½' 40°05'44"N 75°20'12"W	Ledger dolomite	fluxstone pulverized dolomite for agriculture construction aggregate high-magnesium dolomite	See Miller (1934) for geologic description and chemical analysis.
			York County			
426	Baker Refractories P. O. Box 1189 York, PA 17405 (717) 848-1501 (717) 792-3683	(717) 848-2294 (717) 792-2309	quarry York dolomite West York 7½' 39°56'25"N 76°48'40"W	Ledger dolomite	fluxstone refractory products construction aggregate fillers dead-burned dolomite landfill clay	See Stose and Jonas (1939) for geology, Hopkins (1985a, b) for description, Ganis and Hopkins (1984b), Hopkins and Ganis (1990), and Taylor and Hopkins (1990) for geology and description. Less than 1 percent insoluble minerals (Ganis and Hopkins, 1995).
			LIMESTONE			
			Butler County			
95	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 735-2088		quarry Harrisville Barkeyville 7½' 41°08'51"N 79°59'36"W	Vanport limestone	fluxstone high-calcium limestone pulverized limestone for agriculture coal-mine rock dust construction aggregate	See O'Neill (1976) for analysis and thickness. See Pennsylvania Geological Survey (1986) for description of operation. See Snyder (1995) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				FLUXSTONE (cont.)		
				LIMESTONE (cont.)		
				Butler County (cont.)		
99	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 794-6911		quarry Slippery Rock Slippery Rock 7½' 41°02'48"N 80°03'27"W	Vanport limestone	fluxstone high-calcium limestone pulverized limestone for agriculture coal-mine rock dust construction aggregate	See Pennsylvania Geological Survey (1986) for description of operation.
				Centre County		
239	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761 (814) 359-2313	(814) 355-4780	quarry Gentzel Mingoville 7½' 40°53'32"N 77°42'00"W	Valentine Member limestone	fluxstone high-calcium quicklime high-calcium limestone pulverized limestone for agriculture	Mining the Valentine Member of the Linden Hall Formation. Plans underground mining to the south. A 62-ft section contains 98 percent CaCO3 and 0.8 MgCO3 (R.C. Smith, II, unpub. data, 1996). Also see Berkheiser and Smith (1995).
241	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761	(814) 355-4780	underground Nos. 1 and 2 Mingoville 7½' 40°53'16"N 77°42'35"W	Valentine Member limestone	fluxstone high-calcium lime high-calcium limestone pulverized limestone for agriculture screenings	Mining the Valentine Member of the Linden Hall Formation. Location is for entrance to Numbers 1 and 2. Number 3 is nearby.
240	Con-Lime, Inc. P. O. Box 118 Bellefonte, PA 16823 (814) 355-4744	(814) 355-0843	underground Con-Lime Bellefonte 7½' 40°53'24"N 77°50'30"W	Valentine Member limestone	fluxstone for glass high-calcium limestone high-calcium quicklime coal-mine rock dust pulverized limestone for agriculture	Reported to be very low in iron. Mining the Valentine Member of the Linden Hall Formation. A sample representing 84 feet contains 97 percent CaCO3, 1.1 MgCO3 (R.C. Smith, II, unpub. data, 1995). Also see Berkheiser (1985c) and Berkheiser and Smith (1995).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			FLUXSTONE (cont.)			
			LIMESTONE (cont.)			
			Lancaster County			
544	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932	(610) 867-1886	quarry Schoeneck Ephrata 7½' 40°14'15"N 76°10'46"W	Annville limestone	fluxstone cement raw material acid neutralization high-calcium limestone pulverized limestone for agriculture construction aggregate	Selectively mining the Myerstown and Ontelaunee for construction materials and the Annville for high-calcium products. See Berkheiser (1983) for analysis.
			Lebanon County			
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Annville limestone Ontelaunee dolomite	fluxstone limestone for cement manufacture high-calcium quicklime high-calcium limestone construction aggregate	Stripping Ontelaunee to mine Annville. See "Dolomite." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.
			York County			
430	Medusa Mineral Company Biesecker Road Thomasville, PA 17364-0220 (717) 792-2631 (717) 792-2631	(717) 792-3963	underground Thomasville West York 7½' 39°55'18"N 76°51'24"W	Kinzers limestone	fluxstone glass manufacturing cement manufacturing (white) pulverized limestone for agriculture fillers, extenders, whiting high-calcium limestone	Specializes in micron-size particles for fillers. See Cloos (1968) and Ganis and Hopkins (1995) for geologic description, O'Neill (1964) for analysis, and Berkheiser (1983) for whiting potential.
			LIMESTONE AND DOLOMITE			
			Adams County			
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Kinzers limestone Ledger dolomite	fluxstone pulverized carbonate for agriculture high-calcium quicklime construction aggregate railroad ballast	Selectively mining in a geologically complex setting. See "Limestone" and "Dolomite." See Berkheiser (1983) and Hole (1968) for analyses.

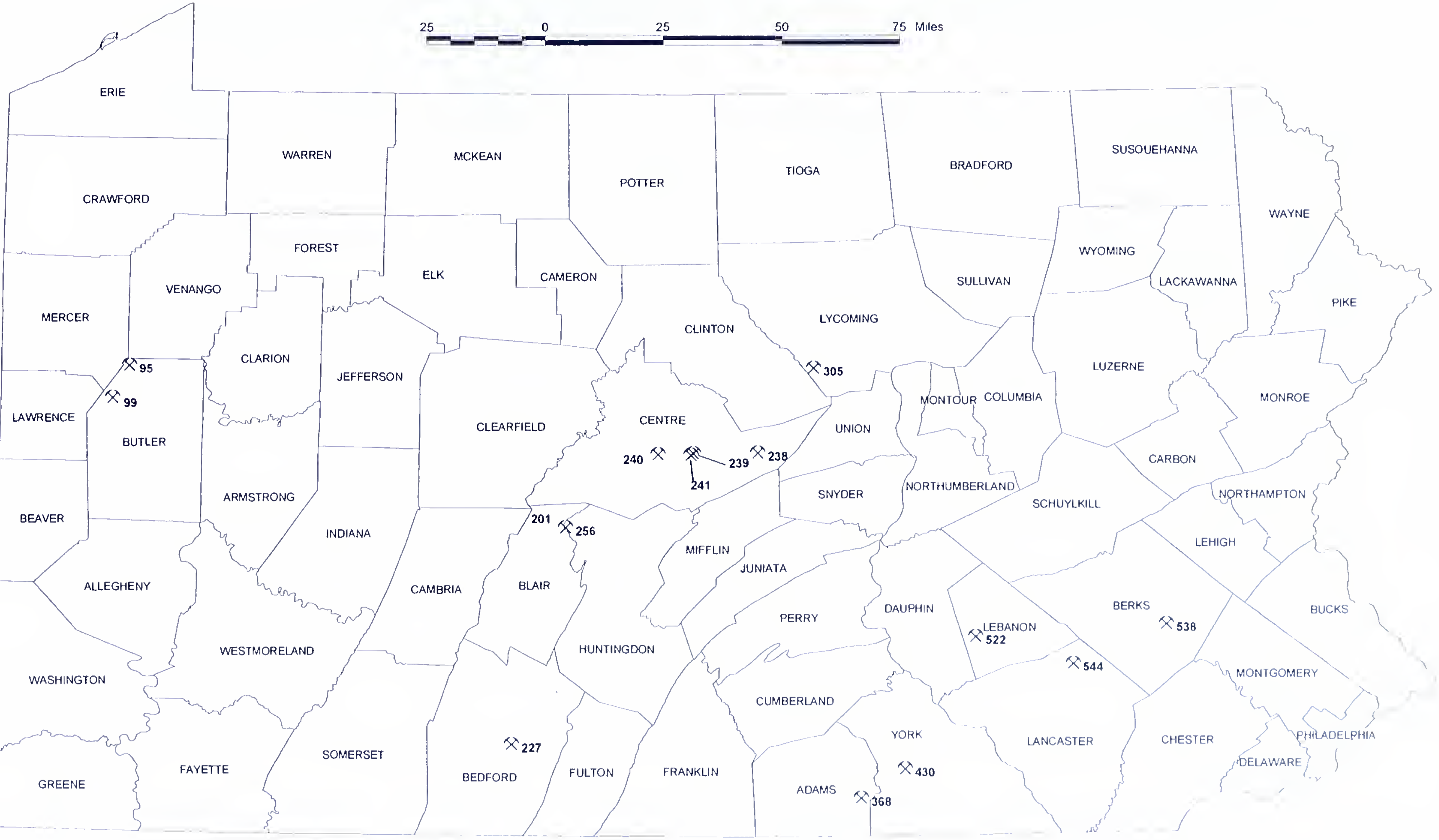

Figure 16. Locations of reporting producers of high-calcium limestone. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				HIGH-CALCIUM LIMESTONE		
				LIMESTONE		
				Adams County		
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Kinzers limestone Ledger dolomite	high-calcium limestone high-calcium quicklime fluxstone pulverized carbonate for agriculture construction aggregate railroad ballast	Selectively mining in a geologically complex setting. See Berkheiser (1983) and Hole (1968) for analyses.
				Bedford County		
227	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 652-5121	(814) 224-6800 (814) 224-6817	quarry Ashcom Clearville 7½' 39°59'51"N 78°25'31"W	Coburn-Loysburg limestone	specialty fine grits carbonate for SO2 absorption coal-mine rock dust construction aggregate coarse aggregate for concrete antiskid	Mining the Coburn through Loysburg interval. Selectively mining the Linden Hall and Snyder Fms. for high-calcium products. A composite of 93 feet yields 92 percent CaCO3 and 2.9 MgCO3 (R.C. Smith, II, unpub. data, 1995). See MacQueen (1993).
				Berks County		
538	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932 (610) 689-9551	(610) 867-1886	quarry Oley Birdsboro 7½' 40°21'20"N 75°48'02"W	Annville limestone	high-calcium limestone cement raw material construction aggregate	Selective mining for high calcium limestone. Averages about 92 percent calcium carbonate. See O'Neill (1964) for analysis, MacLachlan (1983) and Smith (1977) for geology.
				Blair County		
201	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone	high-calcium limestone coal-mine rock dust carbonate for SO2 absorption construction aggregate antiskid	Mining the entire Coburn-through-Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			HIGH-CALCIUM LIMESTONE (cont.)			
			LIMESTONE (cont.)			
			Butler County			
95	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 735-2088		quarry Harrisville Barkeyville 7½' 41°08'51"N 79°59'36"W	Vanport limestone	high-calcium limestone fluxstone coal-mine rock dust pulverized limestone for agriculture construction aggregate	See O'Neill (1976) for analysis and thickness. See Pennsylvania Geological Survey (1986) for description of operation. See Snyder (1995) for history.
99	Allegheny Mineral Corporation P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 794-6911		quarry Slippery Rock Slippery Rock 7½' 41°02'48"N 80°03'27"W	Vanport limestone	high-calcium limestone pulverized limestone for agriculture fluxstone coal-mine rock dust construction aggregate	See Pennsylvania Geological Survey (1986) for description of operation.
			Centre County			
239	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761 (814) 359-2313	(814) 355-4780	quarry Gentzel Mingoville 7½' 40°53'32"N 77°42'00"W	Valentine Member limestone	high-calcium limestone screenings high-calcium quicklime pulverized limestone for agricultural fluxstone	Mining the Valentine Member of the Linden Hall Formation. Plans underground mining to the south. A 62-ft section contains 98 percent CaCO3 and 0.8 MgCO3 (R.C. Smith, II, unpub. data, 1996). Also see Berkheiser and Smith (1995).
241	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761	(814) 355-4780	underground Nos. 1 and 2 Mingoville 7½' 40°53'16"N 77°42'35"W	Valentine Member limestone	high-calcium limestone high-calcium lime screenings pulverized limestone for agriculture fluxstone	Mining the Valentine Member of the Linden Hall Formation. Location is for entrance to Numbers 1 and 2. Number 3 is nearby.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			HIGH-CALCIUM LIMESTONE (cont.)			
			LIMESTONE (cont.)			
			Centre County (cont.)			
240	Con-Lime, Inc. P. O. Box 118 Bellefonte, PA 16823 (814) 355-4744	(814) 355-0843	underground Con-Lime Bellefonte 7½' 40°53'24"N 77°50'30"W	Valentine Member limestone	high-calcium limestone high-calcium quicklime fluxstone for glass coal-mine rock dust pulverized limestone for agriculture	Reported to be very low in iron. Mining the Valentine Member of the Linden Hall Formation. A sample representing 84 feet contains 97 percent CaCO3, 1.1 MgCO3 (R.C. Smith, II, unpub. data, 1995). Also see Berkheiser (1985c) and Berkheiser and Smith (1995).
238	Con-Stone, Inc. P. O. Box 28 Bellefonte, PA 16823 (814) 355-4744	(814) 355-0843	quarry Aaronsburg Millheim 7½' 40°53'40"N 77°26'27"W	Valentine Member limestone	high-calcium limestone	New operation starting in 1996. Mining the Valentine Member of the Linden Hall Formation. Probably could produce SO2 sorbent.
			Huntingdon County			
256	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-2570	(814) 224-6800 (814) 684-2985	quarry Tyrone Forge Tyrone 7½' 40°39'52"N 78°12'48"W	Coburn-Bellefonte limestone	high-calcium limestone coal-mine rock dust carbonate for SO2 absorption construction aggregate antiskid	Mining the entire Coburn through Bellefonte interval. See Rones (1969) and Butts and others (1939). See Atlee (1989) for history.
			Lancaster County			
544	Eastern Industries, Inc. 4401 Camp Meeting Road, Suite 200 Center Valley, PA 18034-9454 (610) 866-0932	(610) 867-1886	quarry Schoeneck Ephrata 7½' 40°14'15"N 76°10'46"W	Annville limestone	high-calcium limestone fluxstone cement raw material acid neutralization pulverized limestone for agriculture construction aggregate	Selectively mining the Myerstown and Ontelaunee for construction materials and the Annville for high-calcium products. See Berkheiser (1983) for analysis.

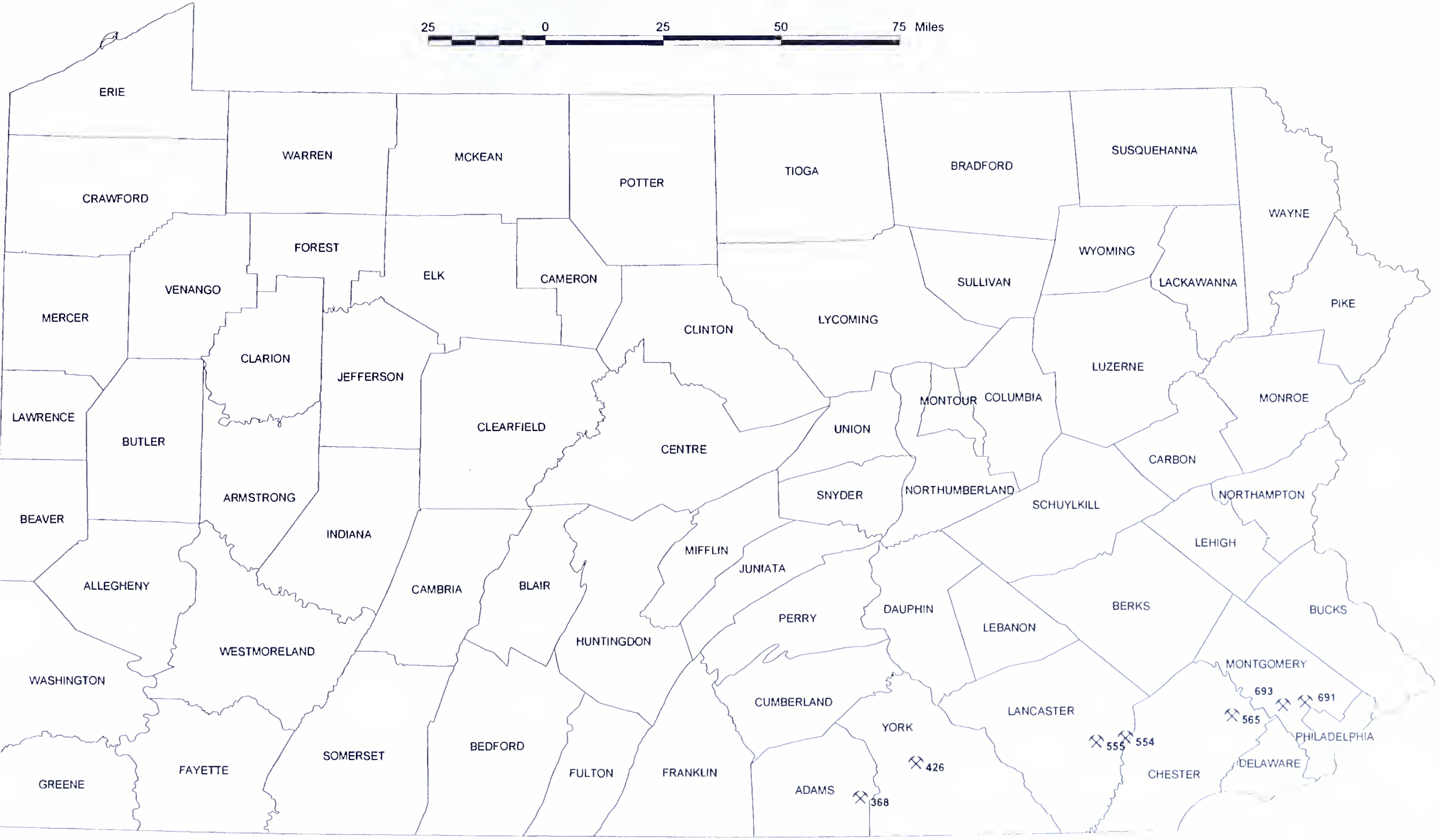

Figure 17. Locations of reporting producers of high-magnesium dolomite. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			HIGH-CALCIUM LIMESTONE (cont.)			
			LIMESTONE (cont.)			
			Lebanon County			
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Annville limestone Ontelaunee dolomite	high-calcium limestone fluxstone limestone for cement manufacture high-calcium quicklime construction aggregate	Stripping Ontelaunee to mine Annville. See "Dolomite." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.
			Lycoming County			
305	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (717) 745-7555	(610) 253-5734	quarry Pine Creek Linden 7½' 41°09'14"N 77°12'51"W	Coburn limestone Hatter limestone	high-calcium limestone construction aggregate	Mining Coburn through Hatter Formations. Includes 68 ft. containing 94 percent CaCO3 and 2.4 MgCO3 from the upper part of the Linden Hall. See Faill and others (1977) for geology and analyses.
			York County			
430	Medusa Mineral Company Biesecker Road Thomasville, PA 17364-0220 (717) 792-2631 (717) 792-2631	(717) 792-3963	underground Thomasville West York 7½' 39°55'18"N 76°51'24"W	Kinzers limestone	high-calcium limestone pulverized limestone for agriculture fillers and extenders fluxstone glass and cement manufacture whiting	Specializes in micron-size particles for fillers. See Cloos (1968) and Ganis and Hopkins (1995) for geologic description, O'Neill (1964) for analysis, and Berkheiser (1983) for whiting potential.
			HIGH-MAGNESIUM DOLOMITE			
			DOLOMITE			
			Adams County			
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Ledger dolomite Kinzers limestone	high-magnesium dolomite fluxstone pulverized carbonates for agriculture construction aggregate railroad ballast fluxstone	Selectively mining in a geologically complex setting. See "Limestone" and "Limestone and Dolomite." See Berkheiser (1983) and Hole (1968) for analyses.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			HIGH-MAGNESIUM DOLOMITE (cont.)			
			DOLOMITE (cont.)			
			Chester County			
565	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 647-4094	(215) 884-1465 (610) 251-0764	quarry Catanach Malvern 7½' 40°04'07"N 75°32'39"W	Ledger dolomite	high-magnesium dolomite fluxstone construction aggregate pulverized dolomite for agriculture	
			Lancaster County			
555	Compass Quarries, Inc. 47 Mellvaine Road Paradise, PA 17562 (717) 442-4191	(717) 442-8729	quarry Compass Gap 7½' 39°59'47"N 76°05'21"W	Vintage dolomite	high-magnesium dolomite pulverized dolomite for agriculture fillers and extenders construction aggregate	See Miller (1934), "Bellemont Quarries," for description and chemical analysis.
554	Martin Limestone, Inc. P. O. Box 550 Blue Ball, PA 17506 (717) 354-1300 (717) 442-4148	(717) 354-1330	quarry Limeville Honey Brook 7½' 40°00'28"N 75°58'21"W	Ledger dolomite	high-magnesium dolomite pulverized dolomite for agriculture	
			Montgomery County			
691	Corson Lime Company 500 Stenton Ave. Plymouth Meeting, PA 19462 (610) 828-4300 (800) 267-7661	(610) 828-5696	quarries Corson Lime Germantown 7½' 40°06'18"N 75°14'49"W	Ledger dolomite	high-magnesium dolomite metallurgical lime carbonate for agricultural lime fluxstone for metal industry construction aggregate	See "Lime." See O'Neill (1964) for analysis.
693	Glasgow, Inc. P. O. Box 1089 Glenside, PA 19038 (215) 884-8800 (610) 279-6840	(215) 884-1465 (610) 279-9286	quarry McCoy Norristown 7½' 40°05'44"N 75°20'12"W	Ledger dolomite	high-magnesium dolomite construction aggregate pulverized dolomite for agriculture fluxstone	See Miller (1934) for geologic description and chemical analysis.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
HIGH-MAGNESIUM DOLOMITE (cont.)						
DOLOMITE (cont.)						
York County						
426	Baker Refractories P. O. Box 1189 York, PA 17405 (717) 848-1501 (717) 792-3683	(717) 848-2294 (717) 792-2309	quarry York dolomite West York 7½' 39°56'25"N 76°48'40"W	Ledger dolomite	refractory products pulverized dolomite for agriculture dead-burned dolomite fillers fluxstone landfill clay	See Stose and Jonas (1939) for geology, Hopkins (1985a, b) for description, Ganis and Hopkins (1984b), Hopkins and Ganis (1990), and Taylor and Hopkins (1990) for geology and description. Less than 1 percent insoluble minerals (Ganis and Hopkins, 1995).
LIME						
DOLOMITE						
Montgomery County						
691	Corson Lime Company 500 Stenton Ave. Plymouth Meeting, PA 19462 (610) 828-4300 (800) 267-7661	(610) 828-5696	quarries Corson Lime Germantown 7½' 40°06'18"N 75°14'49"W	Ledger dolomite	high-magnesium quicklime high-magnesium hydrate lime fluxstone for metal industry carbonate for agricultural lime high-magnesium dolomite construction aggregate	See O'Neill (1964) for analysis.
LIMESTONE						
Adams County						
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Kinzers limestone Ledger dolomite	high-calcium quicklime high-calcium limestone fluxstone pulverized carbonate for agriculture construction aggregate railroad ballast	Selectively mining in a geologically complex setting. See "Dolomite" and "Limestone and Dolomite." See Berkheiser (1983) and Hole (1968) for analyses.

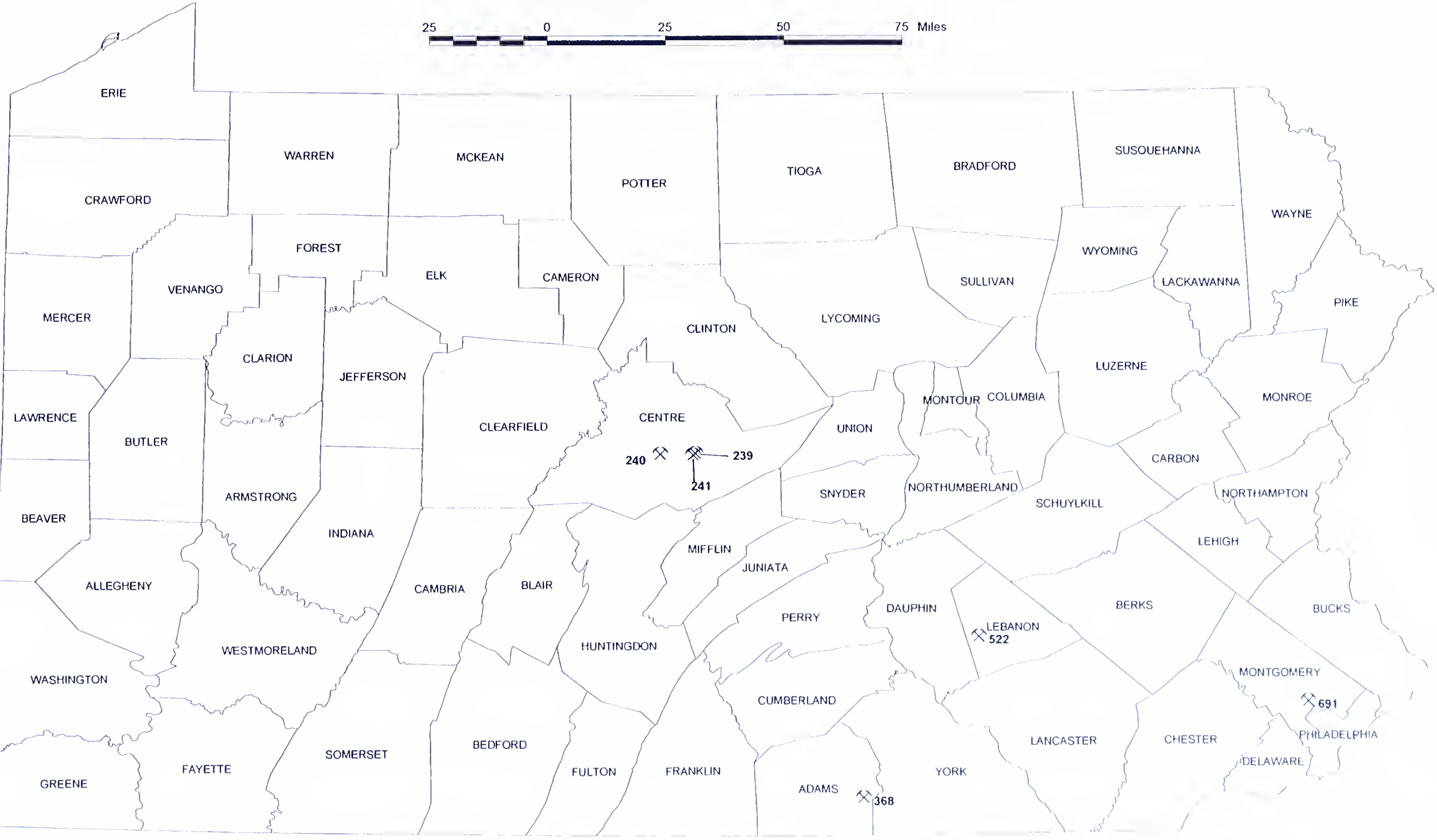

Figure 18. Locations of reporting producers of lime. Dolomite is mined at location 691, limestone at the others. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
LIME (cont.)						
LIMESTONE (cont.)						
Centre County						
239	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761 (814) 359-2313	(814) 355-4780	quarry Gentzel Mingoville 7½' 40°53'32"N 77°42'00"W	Valentine Member limestone	high-calcium quicklime high-calcium limestone screenings pulverized limestone for agriculture fluxstone	Mining the Valentine Member of the Linden Hall Formation. Plans underground mining to the south. A 62-ft section contains 98 percent CaCO3 and 0.8 MgCO3 (R.C. Smith, II, unpub. data, 1996). Also see Berkheiser and Smith (1995).
241	Bellefonte Lime Company P. O. Box 448 Bellefonte, PA 16823 (814) 355-4761	(814) 355-4780	underground Nos. 1 and 2 Mingoville 7½' 40°53'16"N 77°42'35"W	Valentine Member limestone	high-calcium lime high-calcium limestone screenings pulverized limestone for agriculture fluxstone	Mining the Valentine Member of the Linden Hall Formation. Location is for entrance to Numbers 1 and 2. Number 3 is nearby.
240	Con-Lime, Inc. P. O. Box 118 Bellefonte, PA 16823 (814) 355-4744	(814) 355-0843	underground Con-Lime Bellefonte 7½' 40°53'24"N 77°50'30"W	Valentine Member limestone	high-calcium quicklime high-calcium limestone fluxstone for glass coal-mine rock dust pulverized limestone for agriculture	Reported to be very low in iron. Mining the Valentine Member of the Linden Hall Formation. A sample representing 84 feet contains 97 percent CaCO3, 1.1 MgCO3 (R.C. Smith, II, unpub. data, 1995). Also see Berkheiser (1985c) and Berkheiser and Smith (1995).
Lebanon County						
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Annville limestone Ontelaunee dolomite	high-calcium quicklime high-calcium limestone limestone for cement manufacture fluxstone construction aggregate	Stripping Ontelaunee to mine Annville. See "Dolomite." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.

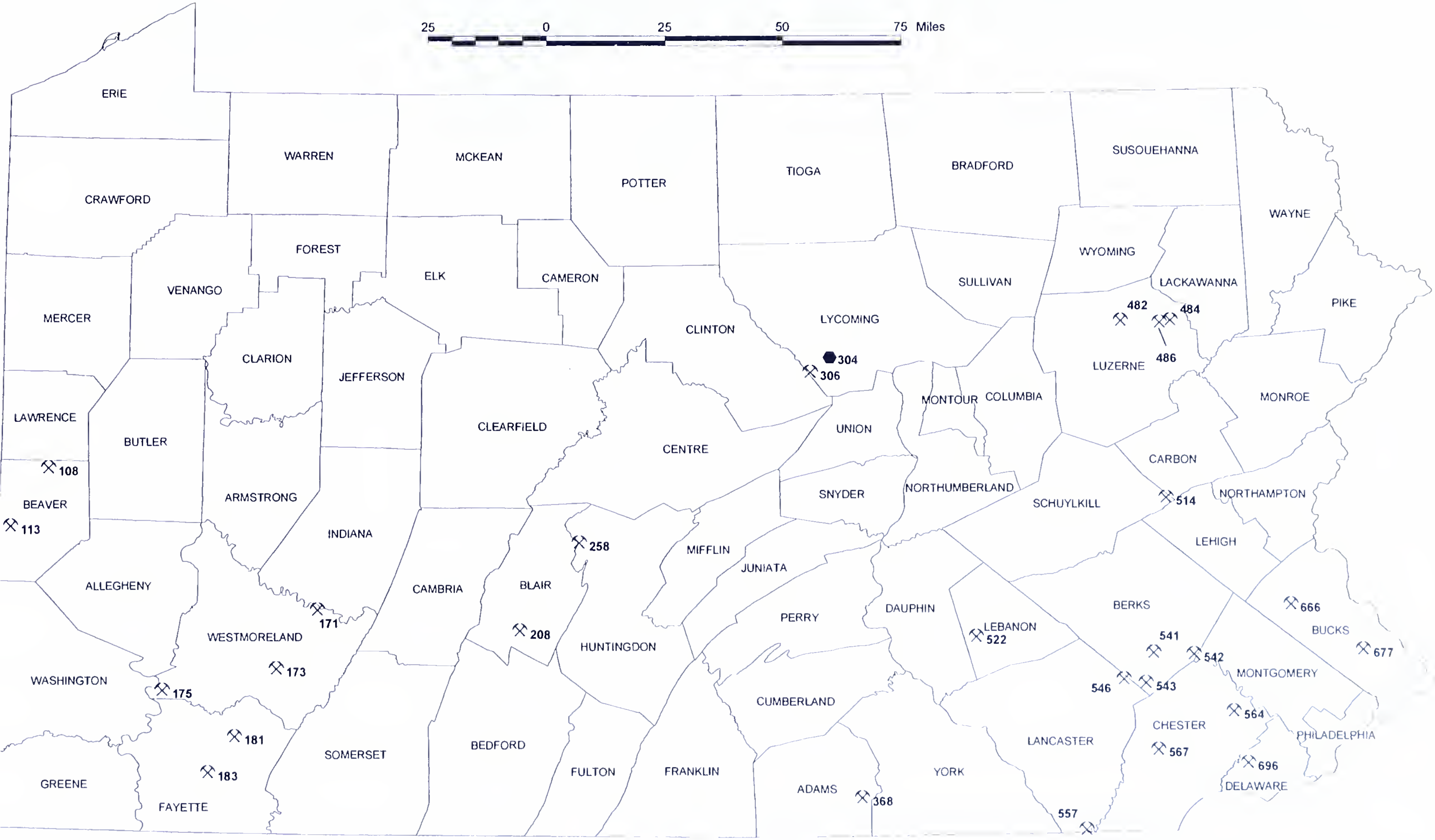

Figure 19. Locations of the state's only reporting producer of quartz crystals (location 304) and the reporting producers of railroad ballast. The railroad ballast producers in western Pennsylvania mine either limestone or slag. Those in the east mine a variety of materials. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
QUARTZ CRYSTALS						
SANDSTONE						
Lycoming County						
304	Smith, Ray P. 1307 Park Avenue Williamsport, PA 17701 (717) 323-6291	(717) 322-7377	open pit Crystal Point Linden 7½' ~41°11'22"N ~77°09'08"W	Bald Eagle sandstone	quartz crystals	Charges a fee to dig for quartz crystals from vein near contact of the Juniata and Bald Eagle Formations. For geology, see Faill and others (1977).
RAILROAD BALLAST						
ARGILLITE AND HORNFELS						
Berks County						
542	Pottstown Trap Rock Quarries, Inc. 394 Sanatoga Road Pottstown, PA 19464 (610) 326-5921		quarry Douglassville Boyertown 7½' 40°15'33"N 75°41'36"W	Brunswick argillite	railroad ballast construction aggregate	Very near diabase contact.
Bucks County						
677	Better Materials Corporation Swamp Road and Route 232 Penns Park, PA 18943 (215) 598-3152	(215) 598-8363	quarry Penns Park Buckingham 7½' 40°15'34"N 75°00'32"W	Lockatong argillite Brunswick shale	railroad ballast construction aggregate rip-rap mineral filler	See Willard and others (1959) for geology.
Lancaster County						
546	H & K Materials P. O. Box 196 Skippack, PA 19474 (610) 584-8500 (717) 445-7430	(610) 584-5059	quarry Silver Hill Morgantown 7½' 40°11'14"N 75°58'34"W	Hammer Creek argillite	railroad ballast construction aggregate	See Wood (1980) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
RAILROAD BALLAST (cont.)						
DIABASE						
Berks County						
541	Dyer, John T., Quarry R. D. 3, Box 188 Birdsboro, PA 19508 (610) 582-6010 (610) 582-8775		quarry John T. Dyer Birdsboro 7½' 40°15'57"N 75°51'18"W	York Haven diabase	railroad ballast construction aggregate	Traditional source of high-quality railroad ballast. See Wood (1980) for geology.
543	Sheridan Corporation 1212 West Maple Street Lebanon, PA 17046 (610) 286-0471	(610) 286-0595	open pit Morgantown Morgantown 7½' 40°10'28"N 75°53'16"W	York Haven diabase	railroad ballast construction aggregate	Using waste rock from the former underground Grace Mine. May be crushing material from other formations in addition to York Haven Diabase.
Bucks County						
666	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (215) 536-0440	(610) 253-5734	quarry Rock Hill Quakertown 7½' 40°24'17"N 75°17'56"W	York Haven diabase	railroad ballast construction aggregate	Traditional source of high-quality railroad ballast. Possible diabase dimension-stone potential in the area.
DOLOMITE						
Lebanon County						
522	Carmeuse Pennsylvania P. O. Box 160 Annville, PA 17003 (717) 867-4441		quarry Millard Palmyra 7½' 40°19'30"N 76°34'00"W	Ontelaunee dolomite Annville limestone	railroad ballast construction aggregate fluxstone	Stripping Ontelaunee to mine Annville. See "Limestone." See O'Neill (1976) and Sims (1968) for analyses, Geyer (1970) for geology, Turley (1993) for description. May selectively mine underground.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				RAILROAD BALLAST (cont.)		
				GNEISS AND RELATED ROCKS		
				Chester County		
564	Devault Crushed Stone Company, Inc. P. O. Box 657 Devault, PA 19432 (610) 296-3906		quarry Devault Malvern 7½' 40°04'52"N 75°32'09"W	Precambrian granitic gneiss	railroad ballast construction aggregate	
				Delaware County		
696	Milestone Materials, Inc. P. O. Box 231 Easton, PA 18044 (610) 253-4271 (610) 459-2492	(610) 253-5734 (610) 558-7800	quarry Glen Mills Media 7½' 39°55'10"N 75°29'09"W	Baltimore gneiss	railroad ballast construction aggregate rip-rap	See Parrott (1974) for geological description. Felsic to mafic gneiss and calcsilicates. See Atlee (1994) for history.
				LIMESTONE		
				Fayette County		
181	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900 (412) 626-0400		quarry Connellsville Connellsville 7½' 40°00'43"N 79°32'29"W	Loyalhanna quartzose limestone	railroad ballast construction aggregate	See O'Neill (1964) for analysis as "Connellsville Bluestone Company." Hickok and Moyer (1940) described the Loyalhanna limestone and quarries.
183	Marsolino Coolspring Quarry, Inc. P. O. Box 1328 Uniontown, PA 15401 (412) 437-8663 (412) 437-5200	(412) 438-8450 (412) 437-0449	quarry Coolspring Uniontown 7½' 39°53'56"N 79°38'49"W	Loyalhanna quartzose limestone	railroad ballast construction aggregate rip-rap sand for manufacturing	See Miller (1934).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			RAILROAD BALLAST (cont.)			
			LIMESTONE (cont.)			
			Westmoreland County			
171	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900 (412) 459-6031		quarry Torrance Bolivar 7½' 40°24'19"N 79°12'56"W	Loyalhanna quartzose limestone	railroad ballast construction aggregate gabion stone rip-rap	See Miller (1934) and Stone (1932). See Follader and others (1995) for geology and analysis.
173	Davison Sand and Gravel Company 400 Industrial Boulevard New Kensington, PA 15068 (412) 362-4900		quarry Whitney Mammoth 7½' 40°13'27"N 79°22'45"W	Loyalhanna quartzose limestone	railroad ballast construction aggregate	See Shaffner (1963) for geology.
			LIMESTONE AND DOLOMITE			
			Adams County			
368	Tarmac America P. O. Box 468 Hanover, PA 17331 (717) 637-7121		quarry Hanover McSherrystown 7½' 39°50'00"N 77°02'00"W	Kinzers limestone Ledger dolomite	railroad ballast construction aggregate high-calcium quicklime fluxstone pulverized carbonate for agriculture	Selectively mining in a geologically complex setting. See "Limestone" and "Dolomite." See Berkheiser (1983) and Hole (1968) for analyses.
			Blair County			
208	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 224-2121	(814) 224-6800 (814) 224-6805	quarry Roaring Spring Roaring Spring 7½' 40°20'46"N 78°23'55"W	Coburn-Axemann limestone Bellefonte dolomite	railroad ballast construction aggregate rip-rap carbonate for SO2 absorption	Mining the entire Coburn through Axemann interval. See Remick (1991) for SO2 sorbent application. See Atlee (1989) for history.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			RAILROAD BALLAST (cont.)			
			LIMESTONE AND DOLOMITE (cont.)			
			Huntingdon County			
258	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664 (814) 766-2211 (814) 684-3180	(814) 224-6800	quarry Union Furnace Spruce Creek 7½' 40°37'05"N 78°09'46"W	Coburn-Loysburg limestone Bellefonte dolomite	railroad ballast construction aggregate rip-rap	Mining the Coburn through Loysburg interval. Nearby roadcut includes 211 feet of section containing 93 percent CaCO3 and 2.8 MgCO3 (R.C. Smith, II, unpub. data, 1995). See Rones (1969) for description of nearby section. See Atlee (1989) for history.
			Lycoming County			
306	P Stone, Inc. P. O. Box 254 Jersey Shore, PA 17740 (717) 745-7144 (717) 745-7166		quarry P Stone Linden 7½' 41°08'27"N 77°13'54"W	Loysburg limestone and dolomite	railroad ballast construction aggregate rip-rap	Also marketing residual clay for borrow and general fill. See Faill and others (1977) for geology.
			Schuylkill County			
514	Huss Contracting Company P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559 (717) 386-4193	(717) 668-5910	quarry Andreas New Tripoli 7½' 40°44'28"N 75°47'34"W	Bossardville limestone Poxono Island dolomitic limestone	railroad ballast construction aggregate	See Lash and others (1984) for description and geology.
			SANDSTONE			
			Luzerne County			
486	American Asphalt Paving Company 500 Chase Road Shavertown, PA 18708 (717) 696-1181 (717) 829-1181	(717) 696-3486 (717) 829-3044	quarry 315 Pittston 7½' 41°16'56"N 75°48'15"W	Llewellyn sandstone	railroad ballast construction aggregate rip-rap	Could also be mining the Pottsville Formation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				RAILROAD BALLAST (cont.)		
				SANDSTONE (cont.)		
				Luzerne County (cont.)		
482	American Asphalt Paving Company 500 Chase Road Shavertown, PA 18708 (717) 696-1181	(717) 696-3486	quarry Chase Kingston 7½' 41°17'26"N 75°57'40"W	Catskill siltstone	railroad ballast construction aggregate gabion stone rip-rap	Predominantly red beds.
484	Coolbaugh Sand and Stone 226 New Boston Road Pittston, PA 18640 (717) 654-2674	(717) 654-1911	quarry Coolbaugh Pittston 7½' 41°17'17"N 75°45'39"W	Pottsville Group sandstone	railroad ballast construction aggregate rip-rap	
				SERPENTINITE		
				Lancaster County		
557	Stoltzfus, D.M., and Son, Inc. P. O. Box 84 Talmage, PA 17580-0084 (717) 656-2411 (717) 548-2192		quarry Cedar Hill Conowingo Dam 7½' 39°43'40"N 76°08'13"W	Baltimore Mafic Cmp. serpentinite	railroad ballast construction aggregate	Stone (1932) discussed some serpentinite quarries in Lancaster County. See Lapham (1960) for a description of mineralogy and geology.
				SLAG		
				Beaver County		
108	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 847-3381	(215) 956-5588 (412) 847-7844	slag bank Beaver Falls Beaver Falls 7½' 40°49'35"N 80°19'15"W	slag	railroad ballast construction aggregate fill	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			RAILROAD BALLAST (cont.)			
			SLAG (cont.)			
			Beaver County (cont.)			
113	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 643-1600	(215) 956-5588 (412) 643-5156	slag bank Midland Midland 7½' 40°38'30"N 80°28'00"W	slag	railroad ballast construction aggregate fill	
			Chester County			
567	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (610) 384-2894	(215) 956-5588 (610) 384-0334	slag bank Coatesville Coatesville 7½' 39°58'05"N 75°50'32"W	slag	railroad ballast construction aggregate	
			Westmoreland County			
175	International Mill Service, Inc. 1155 Business Center Drive, Suite 200 Horsham, PA 19044-3454 (215) 956-5500 (412) 929-4515	(215) 956-5588 (412) 929-2726	slag bank Rostraver Township Donora 7½' 40°09'05"N 79°50'10"W	slag	railroad ballast construction aggregate fill	
			REFRACTORIES			
			DOLOMITE			
			York County			
426	Baker Refractories P. O. Box 1189 York, PA 17405 (717) 848-1501 (717) 792-3683	(717) 848-2294 (717) 792-2309	quarry York dolomite West York 7½' 39°56'25"N 76°48'40"W	Ledger dolomite	refractory bricks fettling stone gunning materials pulverized dolomite for agriculture construction aggregate dead-burned dolomite	See Stose and Jonas (1939) for geology, Hopkins (1985a, b) for description, Ganis and Hopkins (1984b), Hopkins and Ganis (1990), and Taylor and Hopkins (1990) for geology and description. Less than 1 percent insoluble minerals (Ganis and Hopkins, 1995).

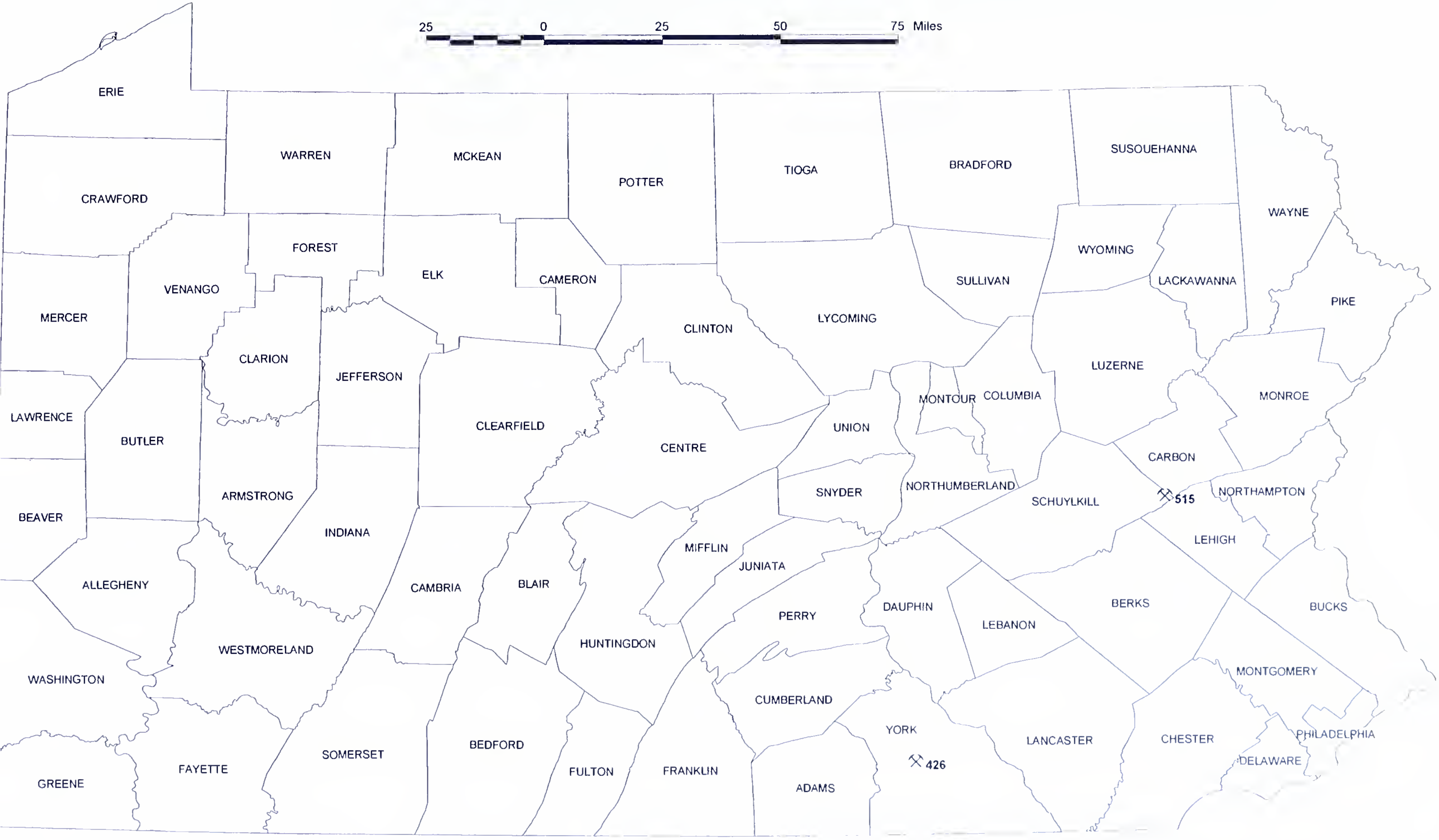

Figure 20. Locations of reporting producers of refractories. Dolomite is mined at location 426, sandstone at 515. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			REFRACTORIES (cont.)			
			SANDSTONE			
			Schuylkill County			
515	Refractory Sand Company, Inc. P. O. Box 277 Tuscarora, PA 17982 (717) 668-0559 (717) 386-4193	(717) 668-5910	quarry Andreas New Tripoli 7½' 40°44'22"N 75°47'32"W	Palmerton sandstone	refractory pebble construction aggregate sand for golf course traps cement raw material	See Sevon (1970) and Lash and others (1984) for geology. See Berkheiser (1985a) for analysis.
			ROOFING MATERIALS			
			GRAVEL			
			Armstrong County			
156	Glacial Sand and Gravel Company P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 548-7121		dredge Bridgeburg plant Mosgrove 7½' 40°52'00"N 79°29'24"W	Quaternary gravel	gravel for rubber roof system construction aggregate	Dredging Allegheny River pool 7. Mapped as outwash valley trains and alluvium (Shepps and others, 1959).
155	Glacial Sand and Gravel Company P. O. Box 1022 Kittanning, PA 16201 (412) 548-8101 (412) 548-2522		open pit Tarrtown Mosgrove 7½' 40°52'02"N 79°29'19"W	Quaternary gravel	gravel for rubber roof system construction aggregate	Mining two sites, Tarrtown Flat and Tarrtown Hill. Mapped as outwash valley trains and alluvium (Shepps and others, 1959).
			METABASALT			
			Adams County			
372	ISP Minerals, Inc. 1455 Old Waynesboro Road Blue Ridge Summit, PA 17214 (717) 794-2184	(717) 794-5248	quarry Charmian Iron Springs 7½' 39°45'28"N 77°27'32"W	Catoctin metabasalt	roofing granules tennis-court material construction aggregate rip-rap fill	See Fauth (1978) for geology, Smith and Barnes (1994) for general chemistry, and Berkheiser and Smith (1990a) for general description.

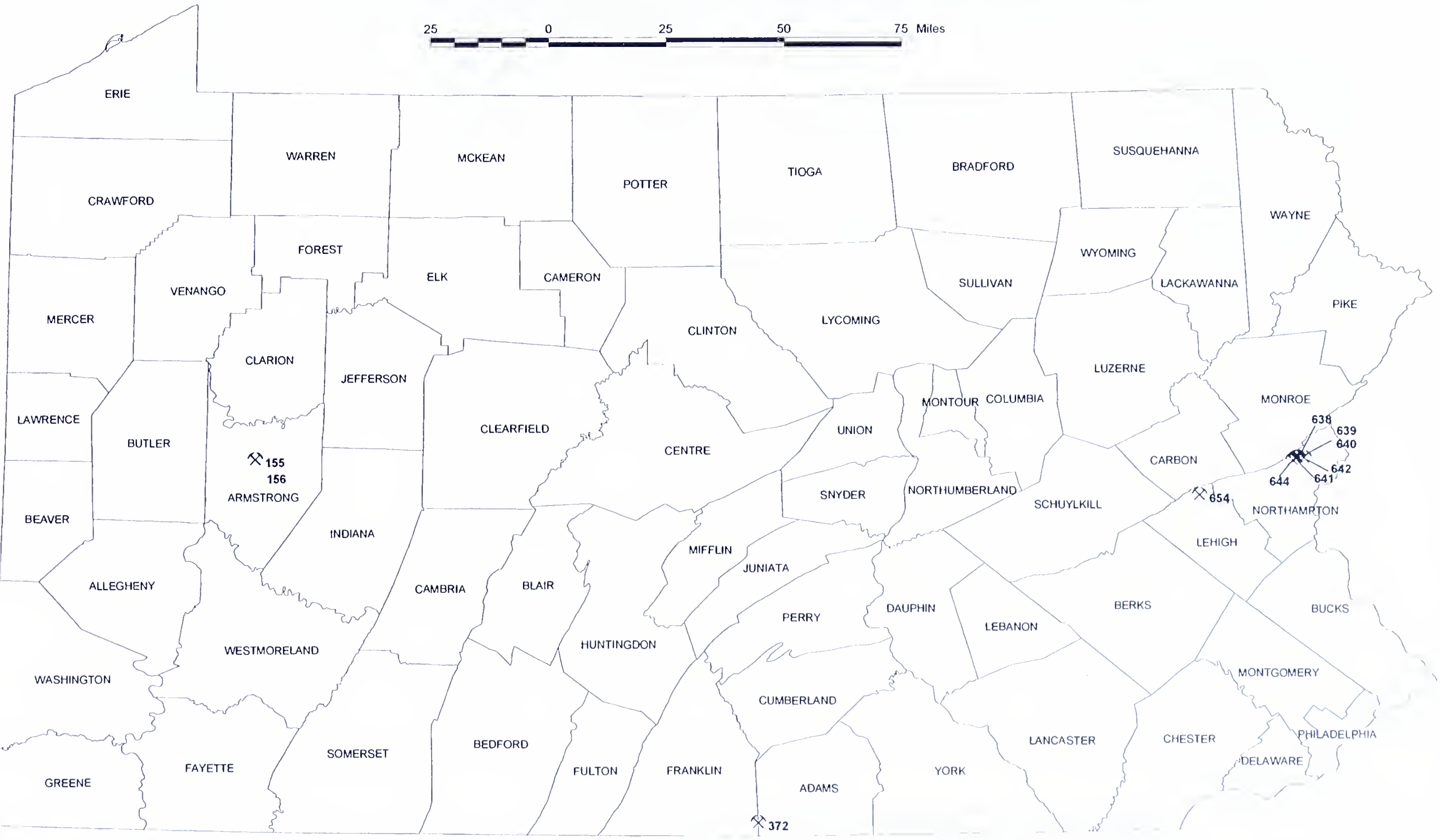

Figure 21. Locations of reporting producers of roofing materials. Slate is mined in Northampton and Lehigh Counties, metabasalt in Adams County, and gravel in Armstrong County. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
ROOFING MATERIALS (cont.)						
SLATE						
Lehigh County						
654	Penn Big Bed Slate Company, Inc. 8450 Brown Street Slatingdon, PA 18080 (610) 767-4601	(610) 767-9252	quarry Manhattan Slatedale 7½' 40°44'56"N 75°39'36"W	Pen Argyl Member slate	roofing slate tiles and panels structural slate flagging, sills, and treads blackboards turkey calls	Mining the Pen Argyl Member of the Martinsburg Formation. See Behre (1933) and Berkheiser (1984, 1985b) for a description of the geology and mining.
Northampton County						
642	American Bangor Slate Company P. O. Box 183 Pen Argyl, PA 18072 (610) 863-4172		quarry American Bangor Bangor 7½' 40°51'29"N 75°13'57"W	Pen Argyl Member slate	roofing slate flooring slate flagstone structural slate	Mining the Pen Argyl Member of the Martinsburg Formation. See Davis and others (1967) for geology; Behre (1933) and Berkheiser (1984, 1985b) for descriptions of the operation.
638	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry A. Dally and Sons Wind Gap 7½' 40°51'40"N 75°15'23"W	Pen Argyl Member slate	roofing slate dimension stone billiard slate blackboard slate electrical slate	Mining the Pen Argyl Member of the Martinsburg Formation. Operating five quarries and at least six distinct milling operations in the area. See Behre (1933) and Berkheiser (1984, 1985b).
641	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry Diamond Slate Wind Gap 7½' 40°51'29"N 75°16'00"W	Pen Argyl Member slate	roofing slate billiard-table tops blackboards structural slate flagging	Mining the Pen Argyl Member of the Martinsburg Formation. Subsidiary: Diamond Slate Co., P. O. Box 5, Pen Argyl, PA 18072. See Behre (1933) and Berkheiser (1984, 1985b).
639	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry Doney No. 1 Wind Gap 7½' 40°51'36"N 75°15'45"W	Pen Argyl Member slate	roofing slate billiard-table tops blackboards structural slate flagging	Mining the Pen Argyl Member of the Martinsburg Formation. Subsidiary: Doney Slate Co., P. O. Box 5, Pen Argyl, PA 18072. See Behre (1933) and Berkheiser (1984, 1985b).

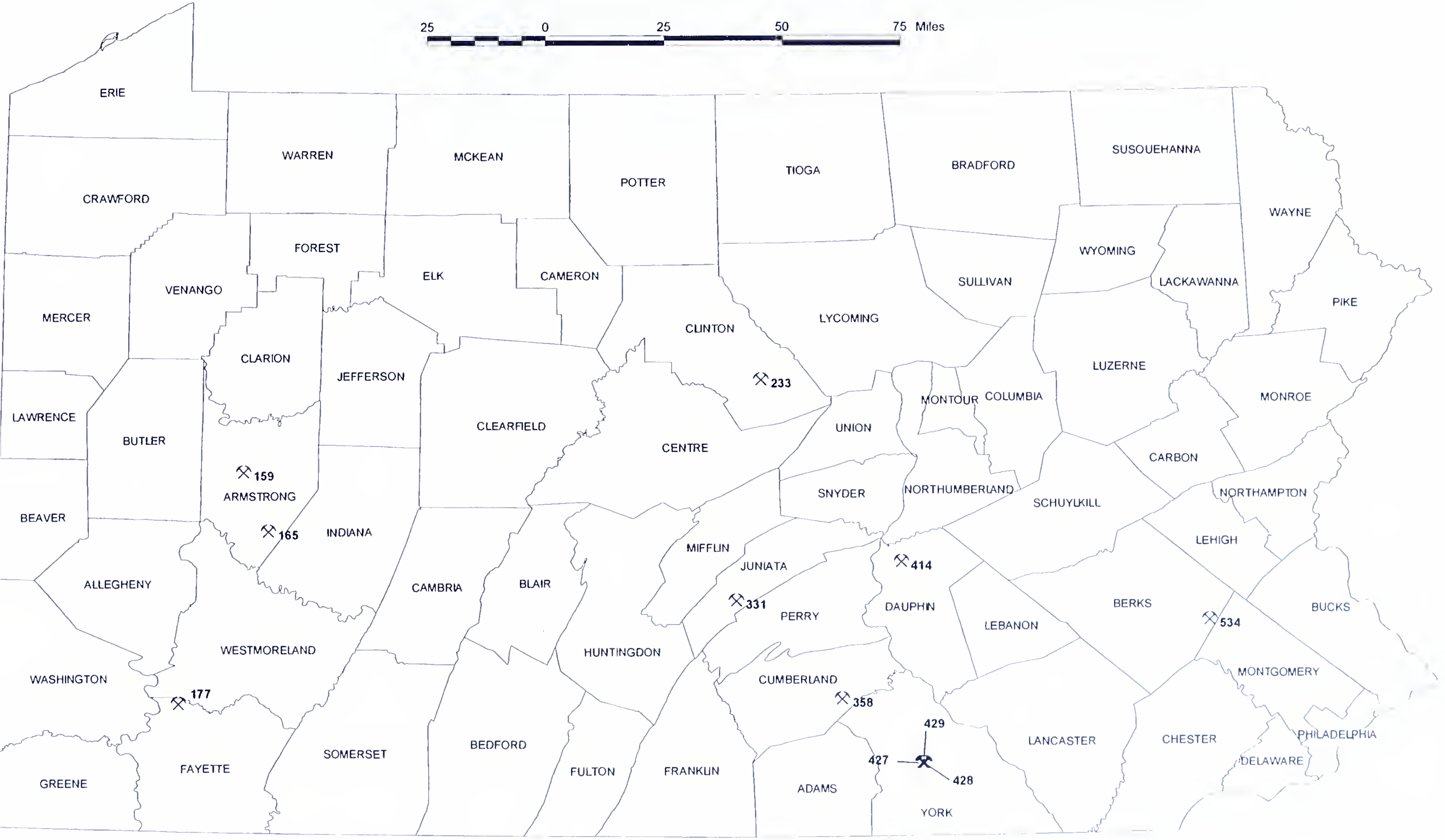

Figure 22. Locations of reporting producers of specialty clay and shale products. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			ROOFING MATERIALS (cont.)			
			SLATE (cont.)			
			Northampton County (cont.)			
640	Dally, Anthony, and Sons, Inc. P. O. Box 27 Pen Argyl, PA 18072 (610) 863-4172		quarry Doney No. 2 Wind Gap 7½' 40°51'33"N 75°15'39"W	Pen Argyl Member slate	roofing slate billiard-table tops blackboards structural slate flagging	Mining the Pen Argyl Member of the Martinsburg Formation. Subsidiary: Doney Slate Co., P. O. Box 5, Pen Argyl, PA 18072. See Behre (1933) and Berkheiser (1984, 1985b).
644	Williams and Sons Slate and Tile, Inc. 6596 Sullivan Trail Wind Gap, PA 18091 (610) 863-4161	(610) 863-8128	quarry Williams and Sons Wind Gap 7½' 40°51'07"N 75°16'39"W	Pen Argyl Member slate	roofing and flooring structural slate treads and risers window sills and mantles flagging	Mining the Pen Argyl Member of the Martinsburg Formation. See Behre (1933) for "Albion Superior Quarry."
			SPECIALTY CLAY AND SHALE			
			CHERT			
			Juniata County			
331	Gibbons, Robert L. R. D. 1, Box 500 Honey Grove, PA 17035 (717) 734-3286		quarry Gibbons McCoysville 7½' 40°26'06"N 77°31'58"W	Shriver chert	clay flint	Produces clay for barnyard fill. Operator reports operation is a "flint quarry." Probably could produce flint for abrasives and knapping.
			CLAY			
			Armstrong County			
165	South Bend Limestone Corporation 200 Route 22 Delmont, PA 15626 (412) 468-8232 (412) 478-1493	(412) 468-8230 (412) 478-4607	open pit Coleman Whitesburg 7½' 40°38'16"N 79°24'50"W	Allegheny Group clay Vanport limestone	fireclay	Also producing sandstone and limestone aggregate and agricultural limestone. See "Limestone" and "Sandstone."

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			SPECIALTY CLAY AND SHALE (cont.)			
			CLAY (cont.)			
			Berks County			
534	Martin Stone Quarries, Inc. P. O. Box 297 Bechtelsville, PA 19505 (610) 367-2011		quarries Martin Stone Boyertown 7½' 40°21'37"N 75°37'46"W	Quaternary clay	clay for landfill liner	Principal product is approved construction aggregate. See "Gneiss" and "Sandstone." See Buckwalter (1959) for geology and Pennsylvania Geological Survey (1984) for description.
			Dauphin County			
414	Dauphin Meadows, Inc. 310 Leger Road North Huntingdon, PA 15642 (412) 861-8730		open pit Dauphin Meadows Elizabethville 7½' 40°33'08"N 76°52'02"W	Mauch Chunk shale	landfill liner material landfill cover material topsoil	Mining soil and weathered rock from the Mauch Chunk Formation. For geology, see Hoskins (1976).
			Fayette County			
177	Sager, Jeffery L. 212 State Street Belle Vernon, PA 15012 (412) 929-8200		open pit Perryopolis Fayette City 7½' 40°06'21"N 79°45'53"W	Monongahela Group clay	sub-base clay for landfills clay for high-wall barriers	
			CLAY SHALE			
			Armstrong County			
159	Continental Clay Company 260 Oak Avenue Kittanning, PA 16201 (412) 543-2611	(412) 545-9659	underground Continental Kittanning 7½' 40°49'15"N 79°31'06"W	Glenshaw shale	tile chimney brick face brick	Probably about 100 feet above the Upper Freeport coal, possibly at the horizon of the Brush Creek coal. For more information, see Berkheiser (1986).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			SPECIALTY CLAY AND SHALE (cont.)			
			CLAY SHALE (cont.)			
			Clinton County			
233	Mill Hall Clay Products 44 Market Street Mill Hall, PA 17751 (717) 726-3111	(717) 726-4335	open pit Castanea mine Mill Hall 7½' 41°07'03"N 77°25'40"W	Clinton Group shale and clay	tile and flue liners agricultural drain tile sewer pipe	Probably mining the Rose Hill Formation or the Castanea Member of the Tuscarora Formation.
			Cumberland County			
358	Penn Products Corporation 1369 Swope Drive Boiling Springs, PA 17007 (717) 258-6481		open pit Reading Banks Mechanicsburg 7½' 40°08'04"N 77°06'31"W	Tomstown clay (residual)	clay (black, manganiferous)	Reportedly used in the manufacture of stoneware. Mining the old "Reading Banks" iron-ore pits. See Foose (1945a, b).
			SHALE			
			York County			
427	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Consolidated West York 7½' 39°56'16"N 76°47'35"W	Kinzers shale	landfill cover material landfill liner material backfill	Also producing construction aggregate, agricultural materials, and fillers. See "Limestone." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.
429	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Ensminger West York 7½' 39°56'14"N 76°47'20"W	Kinzers shale	landfill cover material landfill liner material backfill	Also producing construction aggregate, agricultural materials, and fillers. See "Limestone." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.

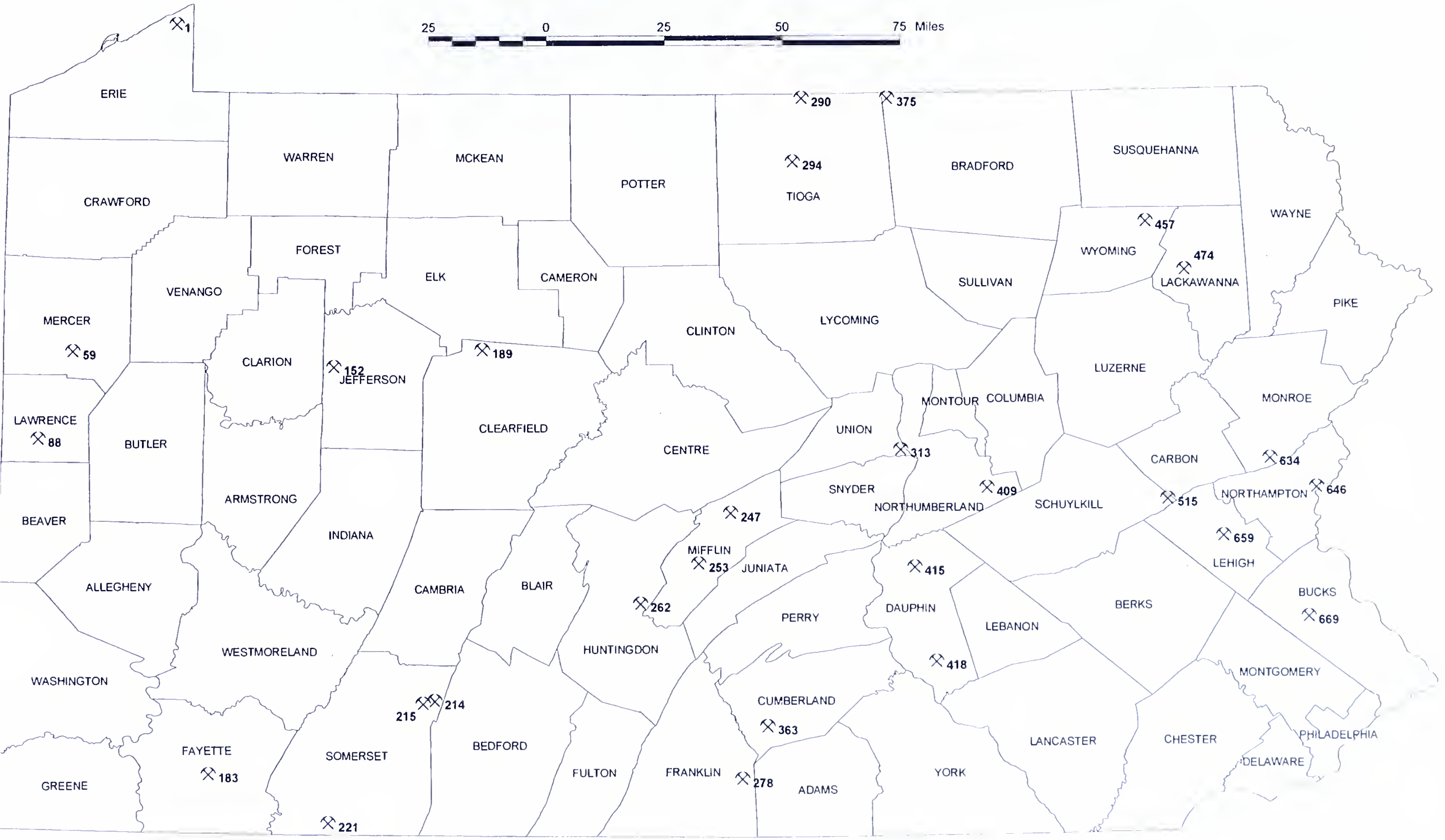

Figure 23. Locations of reporting producers of specialty sand products. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			SPECIALTY CLAY AND SHALE (cont.)			
			SHALE (cont.)			
			York County (cont.)			
428	Global Stone PenRoc, Inc. P. O. Box 1967 York, PA 17405 (717) 843-0981		quarry Williams West York 7½' 39°56'15"N 76°46'58"W	Kinzers shale	landfill cover material landfill liner material backfill	Also producing construction aggregate, agricultural materials, and fillers. See "Limestone." See Ganis and Hopkins (1984a, 1990, 1995), Ganis and Taylor (1990), and Hopkins and Ganis (1990) for geology and descriptions.
			SPECIALTY SAND			
			DOLOMITE			
			Dauphin County			
418	Handwerk Materials P.O. Box B Hummelstown, PA 17036 (717) 566-3002		quarry Swatara Middletown 7½' 40°14'55"N 76°44'00"W	Ontelaunee dolomite	sand-mound sand construction aggregate rip-rap clay	
			LIMESTONE			
			Fayette County			
183	Marsolino Coolspring Quarry, Inc. P. O. Box 1328 Uniontown, PA 15401 (412) 437-8663 (412) 437-5200	(412) 438-8450 (412) 437-0449	quarry Coolspring Uniontown 7½' 39°53'56"N 79°38'49"W	Loyalhanna quartzose limestone	sand for manufacturing construction aggregate railroad ballast rip-rap	See Miller (1934).
			Mifflin County			
247	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 667-2015	(717) 524-7995	quarry Nagineý Burnham 7½' 40°42'39"N 77°33'21"W	Coburn-Loysburg limestone Linden Hall limestone	sand for septic systems agricultural lime carbonate for SO2 absorption construction aggregate antiskid	A roadcut in the area exposes 206 feet of section containing 92 percent CaCO3 and 2.4 MgCO3. Of this, 109 feet contains 95 percent CaCO3 and 2.2 MgCO3 (R.C. Smith, II, unpub. data, 1995).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				SPECIALTY SAND (cont.)		
				LIMESTONE (cont.)		
				Union County		
313	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251	(717) 524-7995	quarry Winfield Northumberland 7½' 40°54'12"N 76°52'00"W	Keyser-Tonoloway limestone	sand for septic systems agricultural lime carbonate for SO2 absorption construction aggregate antiskid	Early source of lime in central Pennsylvania.
				LIMESTONE AND DOLOMITE		
				Lehigh County		
659	ABE Materials 4300 Huckleberry Road Allentown, PA 18104 (610) 395-2571		quarry ABE-Allentown Allentown West 7½' 40°37'22"N 75°34'14"W	Beekmantown Group limestone and dolomite	sand-mound sand construction aggregate rip-rap clay	
				Northampton County		
646	ABE Materials 211 Lower Mud Run Road Easton, PA 18042 (610) 250-7700		quarry ABE-Easton Bangor 7½' 40°45'54"N 75°11'22"W	Jacksonburg limestone Epler dolomite	sand-mound sand construction aggregate rip-rap clay	
				SAND AND GRAVEL		
				Bradford County		
375	Root, Charles T. R. D. 2, Box 963 Gillett, PA 16925 (717) 596-2707		open pit Mosherville Millerton 7½' 41°58'50"N 76°54'12"W	Quaternary sand and gravel	sand for septic systems gravel (screened)	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				SPECIALTY SAND (cont.)		
				SAND AND GRAVEL (cont.)		
				Clearfield County		
189	North Star Aggregates, Inc. P. O. Box R Ridgway, PA 15853 (814) 637-5599	(814) 637-5598	open pit Penfield Penfield 7½' 41°12'58"N 78°33'50"W	Quaternary sand and gravel	sand products construction aggregate borrow and general fill topsoil	Mining Quaternary alluvium.
				Erie County		
1	Girts Sand and Gravel 8553 Findley Lake Road North East, PA 16428 (814) 725-3987		open pit Girts Sand and Gravel North East 7½' 42°12'06"N 79°49'42"W	Quaternary sand and gravel	filter sand (N.Y.-approved) construction aggregate topsoil	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
				Lawrence County		
88	Russell Minerals, Inc. P. O. Box 510 Darlington, PA 16115 (412) 535-0770	(412) 535-3331	open pit Caravella New Castle South 7½' 40°55'10"N 80°22'10"W	Quaternary sand	filter sand concrete sand masonry sand construction aggregate	
				Mercer County		
59	Atlantic States Materials of Pennsylvania P. O. Box 348 Sewickley, PA 15143 (412) 749-0611	(412) 749-0622	open pit Atlantic States Mercer 7½' 41°11'47"N 80°13'58"W	Quaternary sand and gravel	masonry sand construction aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				SPECIALTY SAND (cont.)		
				SAND AND GRAVEL (cont.)		
				Tioga County		
294	Hamm, Michael L. R. D. 2, Box 137 Wellsboro, PA 16901 (717) 724-2319		open pit Hamm Keeneyville 7½' 41°47'30"N 77°17'41"W	Quaternary sand and gravel	sand for septic systems construction aggregate	
290	Heysham Paving Company, Inc. R. D. 1, Box 41 Elkland, PA 16920 (717) 827-2816 (717) 827-2473		open pit Heysham No. 1 Elkland 7½' 41°58'56"N 77°15'20"W	Quaternary sand and gravel	sand-mound sand construction aggregate	Glacial outwash and kame deposits, undifferentiated.
				Wyoming County		
457	Linde Enterprises, Inc. P. O. Box A Honesdale, PA 18431 (717) 253-2643	(717) 253-1321	open pit Brown's Factoryville 7½' 41°35'42"N 75°51'18"W	Quaternary sand and gravel	sand-mound sand construction aggregate	Mining a probable glacial deposit.
				SANDSTONE		
				Bucks County		
669	Blooming Glen Materials P.O. Box 331 Blooming Glen, PA 18911 (215) 257-5188		quarry Blooming Glen Doylestown 7½' 40°21'56"N 75°13'59"W	Brunswick sandstone Lockatong argillite	sand-mound sand construction aggregate rip-rap	

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
SPECIALTY SAND (cont.)						
SANDSTONE (cont.)						
Cumberland County						
363	NEP Sand and Gravel, Inc. 245 Butler Avenue Lancaster, PA 17601 (717) 390-9892 (717) 530-1559	(717) 390-9896 (717) 530-5752	open pit NEP Walnut Bottom 7½' 40°03'14"N 77°24'50"W	Antietam quartzite	masonry sand baseball infield mix sand for concrete manufacture construction aggregate	
Dauphin County						
415	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 362-3388	(717) 524-7995	quarry Elizabethville Elizabethville 7½' 40°32'26"N 76°48'58"W	Pocono sandstone	sand for septic systems approved landfill aggregate construction aggregate	Mining the Mount Carbon and Beckville Members of the Pocono Formation. See Hoskins (1976) for geology.
Franklin County						
278	Valley Quarries, Inc. P. O. Box J Chambersburg, PA 17201 (717) 267-2244 (717) 352-3411		quarry Mt. Cydonia No. 1 Scotland 7½' 39°53'38"N 77°30'50"W	Antietam sandstone and quartzite	colored sands - various construction aggregate	Mines a weathered, friable, varicolored-to-white sandstone. See Berkheiser (1985a) for analysis, Fauth (1968) and Sevon and Van Scyoc (1991) for geology.
Huntingdon County						
262	US Silica Company P. O. Box 187 Berkeley Springs, WV 25411 (304) 258-2500 (814) 542-2561	(304) 258-8293 (814) 542-4350	quarry US Silica Keystone Mount Union 7½' 40°25'50"N 77°55'15"W	Ridgeley sandstone	sand for glass and enamel abrasives, fillers filtration, pottery fire sand, engine sand foundry and molding sand	Mining the "Oriskany" sandstone. See Berkheiser (1985a) for analysis and Fettke (1919) and Shufflebarger (1978) for descriptions. Formerly operated by Pennsylvania Glass Sand Corporation.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				SPECIALTY SAND (cont.)		
				SANDSTONE (cont.)		
				Jefferson County		
152	Glenn Brothers Quarry P. O. Box 281 Corsica, PA 15829 (814) 856-2401	(814) 226-8412	quarry Glenn Brothers Corsica 7½' 41°09'37"N 79°09'57"W	Allegheny Group sandstone	sand-mound sand construction aggregate	
				Lackawanna County		
474	Scranton Materials 819 Newton Road Seranton, PA 18504 (717) 961-8586		quarry West Mountain Scranton 7½' 41°26'37"N 75°42'04"W	Speehty Kopf sandstone	sand-mound sand construction aggregate building stone rip-rap	See Stone (1932) for a description of West Mountain quarries.
				Mifflin County		
253	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177 (717) 524-2251 (717) 242-0252	(717) 524-7995	quarry Strodes Mill Belleville 7½' 40°33'17"N 77°41'11"W	Ridgeley sandstone	mortar sand fine aggregate	About 2 miles northeast of an abandoned glass-sand operation, first worked in 1868. See Fettke (1919). Mining the "Oriskany" sandstone.
				Monroe County		
634	Chestnut Ridge Sand R.D. 2, Box 508-C Kunkletown, PA 18058 (610) 381-4100		quarry Altemose Wind Gap 7½' 40°51'28"N 75°22'29"W	Palmerton sandstone Ridgeley sandstone	filter sand sand-mound sand concrete sand masonry sand baseball infield mix	

Map No.	Name and Address	Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
					SPECIALTY SAND (cont.)		
					SANDSTONE (cont.)		
					Northumberland County		
409	Eastern Industries, Inc., Western Div. P. O. Box 177 Winfield, PA 17889-0177	(717) 524-2251 (717) 644-0603	(717) 524-7995	quarry Shamokin Shamokin 7½' 40°46'57"N 76°31'18"W	Llewellyn sandstone	sand for septic systems construction aggregate	For a map of coal outcrops in the area, see Danilchik and others (1962).
					Schuylkill County		
515	Refractory Sand Company, Inc. P. O. Box 277 Tuscarora, PA 17982	(717) 668-0559 (717) 386-4193	(717) 668-5910	quarry Andreas New Tripoli 7½' 40°44'22"N 75°47'32"W	Palmerton sandstone	refractory sand sand for golf-course traps construction aggregate cement raw material	See Sevon (1970) and Lash and others (1984) for geology. See Berkheiser (1985a) for analysis.
					Somerset County		
221	Keystone Lime Company, Inc. P. O. Box 278 Springs, PA 15562	(814) 662-2711	(814) 662-2712	quarry Rodamer Markleton 7½' 39°45'10"N 79°09'54"W	Burgoon sandstone	masonry sand concrete sand construction aggregate	
215	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664	(814) 766-2211 (814) 754-4921	(814) 224-6800 (814) 754-5916	quarry Central City Central City 7½' 40°07'13"N 78°47'30"W	Allegheny Group sandstone	masonry sand landfill leachate zone aggregate fine aggregate for concrete fine aggregate	Apparently mining sandstone associated with the Kittanning and Clarion coals. See Atlee (1989) for history.
214	New Enterprise Stone & Lime Co., Inc. P. O. Box 77 New Enterprise, PA 16664	(814) 766-2211 (814) 754-4921	(814) 224-6800 (814) 754-5916	quarry Ishman Ogletown 7½' 40°07'44"N 78°44'41"W	Allegheny Group sandstone	masonry sand landfill leachate zone aggregate fine aggregate for concrete fine aggregate	Apparently mining sandstone associated with the Kittanning and Clarion coals. See Atlee (1989) for history.

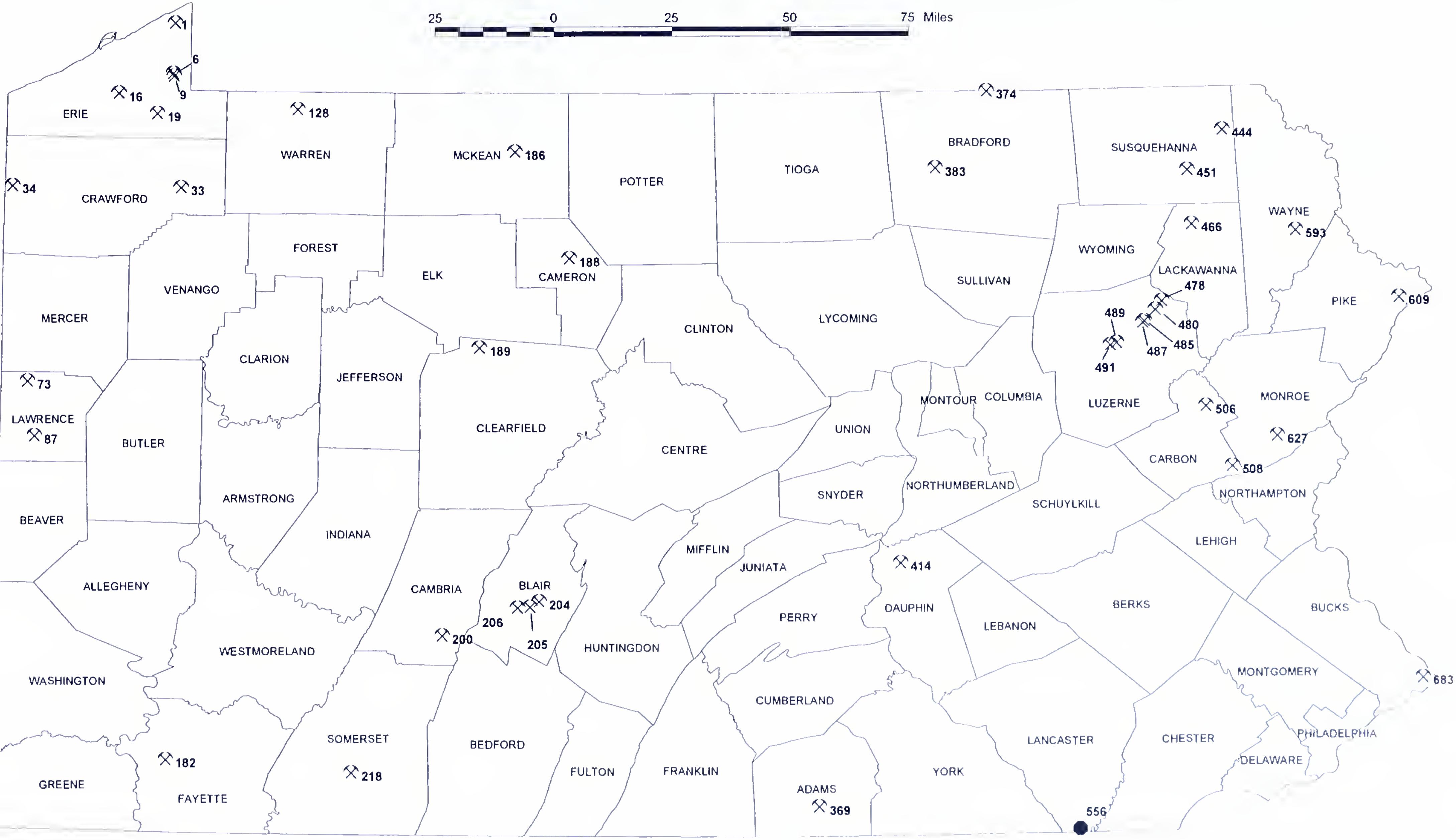

Figure 24. Locations of the state's only permitted talc mine (location 556) and the reporting producers of topsoil. Map numbers correspond to those in the listings.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
TALC						
SERPENTINITE						
Lancaster County						
556	Brookmyer, Ben R. 1441 Millport Road Lancaster, PA 17602 (717) 394-6334		open pit Brookmyer Conowingo Dam 7½' 39°43'56"N 76°09'45"W	Baltimore Mafic Cmp. serpentinite	talc	Resource has been identified and the operation permitted, but operation is not active. See Pearre and Heyl (1960) for geology.
TOPSOIL						
SOIL						
Adams County						
369	Clapsaddle, Wilson, Sand Quarry 1790 Baltimore Pike Gettysburg, PA 17325 (717) 334-1344		open pit Clapsaddle Gettysburg 7½' 39°48'23"N 77°12'08"W	Quaternary soil	topsoil fine aggregate borrow and general fill	Mining weathered residuum from the York Haven Diabase. See Wood (1980) for geology.
Blair County						
205	Heverly Enterprises R. D. 3, Box 566-B Hollidaysburg, PA 16648 (814) 696-1066	(814) 696-3365	open pit Heverly Enterprises Frankstown 7½' 40°25'12"N 78°21'22"W	Quaternary soil	topsoil potting soil baseball infield mixes	
204	Snowberger, Earl H. P. O. Box 658 Hollidaysburg, PA 16648 (814) 696-7645		open pit Snowberger Frankstown 7½' 40°26'14"N 78°19'10"W	Quaternary soil	topsoil	Extracting alluvium from the floodplain of the Frankstown Branch of the Juniata River. Also produces mulch.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
	TOPSOIL (cont.)					
	SOIL (cont.)					
	Blair County (cont.)					
206	Ventre, D.C., and Sons, Inc. 315 First Avenue Duncansville, PA 16635 (814) 695-0505	(814) 696-3168	open pit Ventre Hollidaysburg 7½' 40°25'03"N 78°24'22"W	Quaternary soil	topsoil	
	Bradford County					
383	Bronson Construction Co., Inc. R. D. 3, Box 229 Troy, PA 16947 (717) 297-3486	(717) 297-3486	open pit Valley Bridge East Troy 7½' 41°45'39"N 76°42'04"W	Quaternary soil	topsoil coarse aggregate	Coarse aggregate obtained from Quaternary alluvium.
374	Simonds, Tom, and Son Excavating R. D. 1, Box 50-B Sayre, PA 18840 (717) 888-3396	(717) 888-0030	open pit Simonds and Son Litchfield 7½' 41°59'44"N 76°29'09"W	Quaternary soil	topsoil construction aggregate	Mining alluvium. Business straddles state line; pit is in New York, only access is from Pennsylvania.
	Bucks County					
683	GROWS, Inc. 1000 New Ford Mill Road Morrisville, PA 19067 (215) 295-7193	(215) 295-7198	dredge spoils Turkey Hill Trenton West 7½' 40°09'51"N 74°46'33"W	Trenton gravel	topsoil borrow and general fill structural fill	Probably extracting silt for landfill cover and topsoil from the dredge spoils.
	Cambria County					
200	B & Y Sand and Gravel, Inc. 506 Hillside Avenue State College, PA 16803 (814) 237-1863	(814) 237-1863	quarry Sidman Beaverdale 7½' 40°19'45"N 78°42'17"W	Quaternary soil	topsoil construction aggregate sand for concrete manufacture	Other products derived from the Glenshaw sandstone.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				TOPSOIL (cont.)		
				SOIL (cont.)		
				Cameron County		
188	Troncone, Steven S. 605 East Second Street Emporium, PA 15834 (814) 486-0192		open pit Troncone Cameron 7½' 41°29'26"N 78°12'08"W	Quaternary soil	topsoil	Extracting alluvium from the floodplain of the Driftwood Branch of Sinnemahoning Creek.
				Carbon County		
506	Diehl, Spencer H. 2062 Indian Hill Road Lehighton, PA 18235 (610) 377-4132		open pit Diehl Blakeslee 7½' 41°01'11"N 75°37'20"W	Quaternary soil	topsoil	Stripping topsoil, then reseeding grass.
508	Eckhart, Douglas D. 3560 Hahn's Dairy Road Palmerton, PA 18071 (610) 826-5159		open pit Eckhart Palmerton 7½' 40°50'06"N 75°31'11"W	Quaternary soil	topsoil borrow and general fill	Borrow and general fill obtained from the Mahantango shale. See Epstein and others (1974) for geology.
				Clearfield County		
189	North Star Aggregates, Inc. P. O. Box R Ridgway, PA 15853 (814) 637-5599	(814) 637-5598	open pit Penfield Penfield 7½' 41°12'58"N 78°33'50"W	Quaternary soil	topsoil construction aggregate sand products borrow and general fill	Mining Quaternary alluvium.
				Crawford County		
34	Oskin, David L. R. D. 2, Box 213 Linesville, PA 16424 (814) 683-4437		open pit Oskin Linesville 7½' 41°41'32"N 80°29'17"W	Quaternary soil	topsoil construction aggregate (bank-run)	Coarse aggregate obtained from Quaternary gravel.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			TOPSOIL (cont.)			
			SOIL (cont.)			
			Crawford County (cont.)			
33	Watson, Robert E. and Ruth Ann R. D. 4, Box 7 Centerville, PA 16404 (814) 967-4975 (814) 654-7688		open pit Watson Centerville 7½' 41°41'47"N 79°47'32"W	Quaternary soil	topsoil construction aggregate borrow and general fill	Coarse aggregate is glacial gravel. Borrow and general fill is shale.
			Dauphin County			
414	Dauphin Meadows, Inc. 310 Leger Road North Huntingdon, PA 15642 (412) 861-8730		open pit Dauphin Meadows Elizabethville 7½' 40°33'08"N 76°52'02"W	Quaternary soil	topsoil landfill cover material landfill liner material	Mining soil and weathered rock from the Mauch Chunk Formation. For geology, see Hoskins (1976).
			Erie County			
1	Girts Sand and Gravel 8553 Findley Lake Road North East, PA 16428 (814) 725-3987		open pit Girts Sand and Gravel North East 7½' 42°12'06"N 79°49'42"W	Quaternary soil	topsoil construction aggregate filter sand (N.Y.-approved)	Construction aggregate and filter sand produced from Quaternary glacial sand and gravel.
6	Hoover Sand and Gravel Company, Inc. R. D. 1, Troupe Road Harborcreek, PA 16421 (814) 899-4618 (814) 739-9477		open pit Hoover No. 6 Wattsburg 7½' 42°02'44"N 79°49'59"W	Quaternary soil	topsoil construction aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).
9	Hoover Sand and Gravel Company, Inc. R. D. 1, Troupe Road Harborcreek, PA 16421 (814) 899-4618 (814) 739-9588		open pit Hoover No. 9 Wattsburg 7½' 42°02'14"N 79°49'47"W	Quaternary soil	topsoil construction aggregate	Mining alluvium of the West Branch French Creek (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
				TOPSOIL (cont.)		
				SOIL (cont.)		
				Erie County (cont.)		
16	Sibleyville Land and Gravel Company 11015 Sharp Road Waterford, PA 16441 (814) 796-4766		open pit Sibleyville Cambridge Spr. NE 7½' 41°58'53"N 80°03'27"W	Quaternary soil	topsoil coarse aggregate	Coarse aggregate obtained from Quaternary glacial gravel. For geology see Shepps and others (1959).
19	Troyer, Mervin 7400 Route 97 Union City, PA 16438 (814) 438-3287		open pit Troyer Waterford 7½' 41°55'21"N 79°53'44"W	Quaternary soil	topsoil coarse aggregate	Coarse aggregate obtained from the Venango Sandstone.
				Fayette County		
182	Silbaugh, Ralph G., Jr. R. D. 6, Box 418 Uniontown, PA 15401 (412) 245-8506		open pit Silbaugh New Salem 7½' 39°56'12"N 79°48'33"W	Quaternary soil	topsoil	Extracting alluvium from the floodplain of Saltlick Run.
				Lackawanna County		
466	Decker, Eugene M. R. D. 1, Box 165 Dalton, PA 18414 (717) 563-2198		open pit Decker Dalton 7½' ~41°34'38"N ~75°39'34"W	Quaternary soil	topsoil	Location given is that of stockpile in East Benton, Lackawanna County. Mining is done nearby in Wyoming County.
				Lawrence County		
73	Hamilton, James F. R. D. 1 New Wilmington, PA 16142 (412) 946-2813		open pit Hamilton Edinburg 7½' 41°05'34"N 80°24'30"W	Quaternary soil	topsoil borrow and general fill construction aggregate	Mapped as kames, kame terraces, kame moraines, and eskers, undifferentiated (Shepps and others, 1959).

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			TOPSOIL (cont.)			
			SOIL (cont.)			
			Lawrence County (cont.)			
87	S & S Processing 925 Beechwood Boulevard Ellwood City, PA 16117 (412) 535-3110	(412) 535-3296	open pit S & S Bessemer 7½' 40°55'38"N 80°22'32"W	Quaternary soil	topsoil subsoil	Mining alluvium of the Beaver River.
			Luzerne County			
485	Bonomo Trucking Company 32 Pittston Avenue Yatesville, PA 18640 (717) 654-1951		open pit Bonomo's Topsoil Pittston 7½' 41°17'03"N 75°51'44"W	Quaternary soil	topsoil borrow and general fill	Mining on the floodplain of the Susquehanna River.
478	Cremard Brothers 71 South Foote Avenue Duryea, PA 18642 (717) 457-6771	(717) 457-3811	open pit Coxton Pittston 7½' 41°20'39"N 75°47'26"W	Quaternary soil	topsoil	Extracting alluvium from the floodplain at the confluence of the Lackawanna and Susquehanna Rivers.
491	Dallas Nursery R. D. 5, Box 120 Dallas, PA 18612 (717) 675-1152	(717) 674-5853	open pit Dallas Nursery Nanticoke 7½' 41°12'46"N 76°00'08"W	Quaternary soil	topsoil	Extracting alluvium from the floodplain of the Susquehanna River.
489	Hanover Nursery 5 Crystal Street Wilkes-Barre, PA 18702 (717) 822-1545		open pit Hanover Nursery Wilkes-Barre West 7½' 41°13'08"N 75°58'41"W	Quaternary soil	topsoil	Mining on the floodplain of the Susquehanna River.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
TOPSOIL (cont.)						
SOIL (cont.)						
Luzerne County (cont.)						
487	Price, Theodore 117 South Main Street Plainsville, PA 18705 (717) 824-4241		open pit Theodore Price Pittston 7½' 41°16'49"N 75°52'05"W	Quaternary soil	topsoil	Mining alluvium of the Susquehanna River.
480	Russo Construction Company 477 Slocum Street Exeter, PA 18643 (717) 693-4733	(717) 693-4733	open pit Russo Pittston 7½' 41°19'04"N 75°49'02"W	Quaternary soil	topsoil	Extracting alluvium on the floodplain of the Susquehanna River.
McKean County						
186	Castelli, John Peter Box 96 East Smethport, PA 16730 (814) 887-5875		open pit Castelli Smethport 7½' 41°48'56"N 78°25'31"W	Quaternary soil	topsoil construction aggregate borrow and general fill	Mining the floodplain of Potato Creek. Other products obtained from sand and gravel.
Monroe County						
627	Nevil, S. Kevin R. D. 4, Box 4201 Saylorsburg, PA 18353 (717) 992-6068		open pit Nevil Saylorsburg 7½' 40°55'30"N 75°20'09"W	Quaternary soil	topsoil borrow and general fill	Borrow and general fill obtained from the Mahantango shale.
Pike County						
609	FAW Associates Route 6 West Milford, PA 18337 (717) 296-5586	(717) 296-8639	open pit FAW Milford 7½' 41°20'16"N 74°49'29"W	Quaternary soil	topsoil screened fill construction aggregate rip-rap	See Sevon and others (1989) for geology.

Map No.	Name and Address Office Phone Operation Phone	Office Fax Operation Fax	Type of Operation Name of Operation Quadrangle Latitude Longitude	Formations Lithologies	Products	Comment
			TOPSOIL (cont.)			
			SOIL (cont.)			
			Somerset County			
218	Airesman, Floyd E. and Randy G. R. D. 4, Box 123-A Berlin, PA 15530 (814) 443-3691	(814) 445-5821	open pit Airesman Murdock 7½' 39°54'21"N 79°03'46"W	Quaternary soil	topsoil sand dimension stone	Dimension stone and construction aggregate are probably derived from the Kittanning sandstone of the Allegheny Group.
			Susquehanna County			
451	Turner, Morgan R. D. 2, Box 231 Kingsley, PA 18826 (717) 278-3146		open pit Turner Hop Bottom 7½' ~41°44'33"N ~75°45'20"W	Quaternary soil	topsoil	Mining alluvium.
444	Witiak Excavating R. D. 1, Box 14 Union Dale, PA 18470 (717) 679-2494		open pit Witiak Thompson pit Thompson 7½' 41°51'49"N 75°31'20"W	Quaternary soil	topsoil construction aggregate	Residual soil developed from weathering of glacial material. Operation for sale as of 1995.
			Warren County			
128	Allen, John, Excavating, Inc. R. D. 1, Box 193 Sugar Grove, PA 16350 (814) 489-7830	(814) 489-3723	open pit Allen Excavating Sugar Grove 7½' 41°56'30"N 79°18'53"W	Quaternary soil	topsoil construction aggregate	
			Wayne County			
593	Weidner, Daniel A. 100 Fourth Street Honesdale, PA 18431 (717) 253-1968		open pit Weidner White Mills 7½' 41°33'03"N 75°14'03"W	Quaternary soil	topsoil	Mining alluvium of the Lackawaxen River.

PART 2

County Maps

and

Producer Listing by Map Number

The maps that follow (Figures 25 through 50) show the locations of all of the operations listed in Part 1. The numbers correspond to the "Map Number" listed with each operation in Part 1. A numerical list of the operations by map number follows the maps in this section.

The letters that accompany the numbers on Figures 25 through 50 indicate the principal commodities produced at each site. The key to the commodity symbols is presented in Table 3.

Table 3. ***Key to Commodity Symbols in Figures 25 through 50.***

Symbol	Commodity
Ab	Abrasives
A	Agricultural minerals
B	Borrow and general fill
Br	Bricks (construction)
Su	Carbonate for SO_2 absorption
Cm	Cement raw materials
Cd	Coal-mine rock dust
C	Construction aggregate
D	Dimension stone
Fi	Fillers
F	Fluxstone
Hc	High-calcium limestone
Hm	High-magnesium dolomite
L	Lime
Q	Quartz crystals
R	Railroad ballast
Rf	Refractories
Rm	Roofing materials
Cs	Specialty clay and shale
S	Specialty sand
Ta	Talc
T	Topsoil

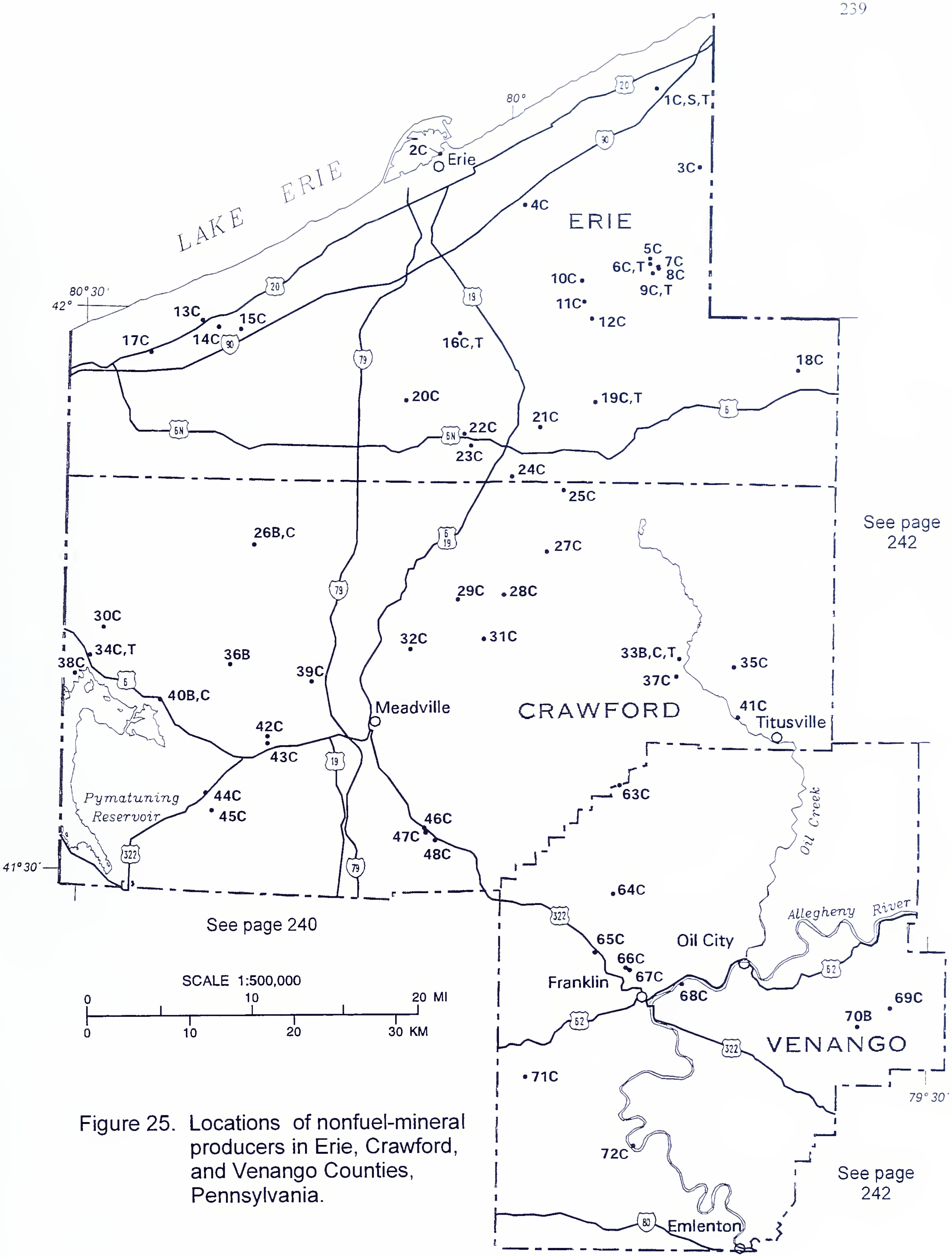

Figure 25. Locations of nonfuel-mineral producers in Erie, Crawford, and Venango Counties, Pennsylvania.

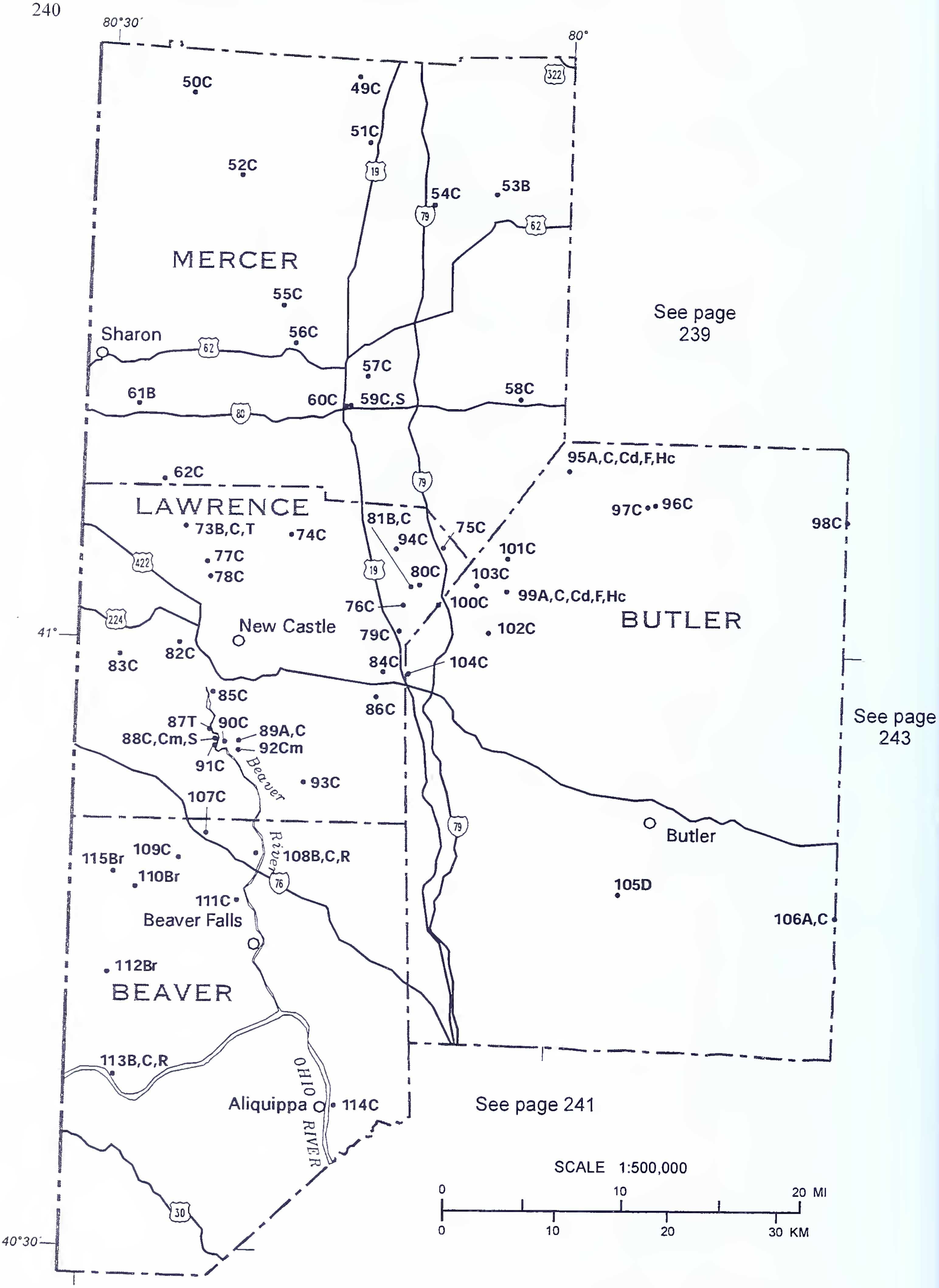

Figure 26. Locations of nonfuel-mineral producers in Mercer, Lawrence, Beaver, and Butler Counties, Pennsylvania.

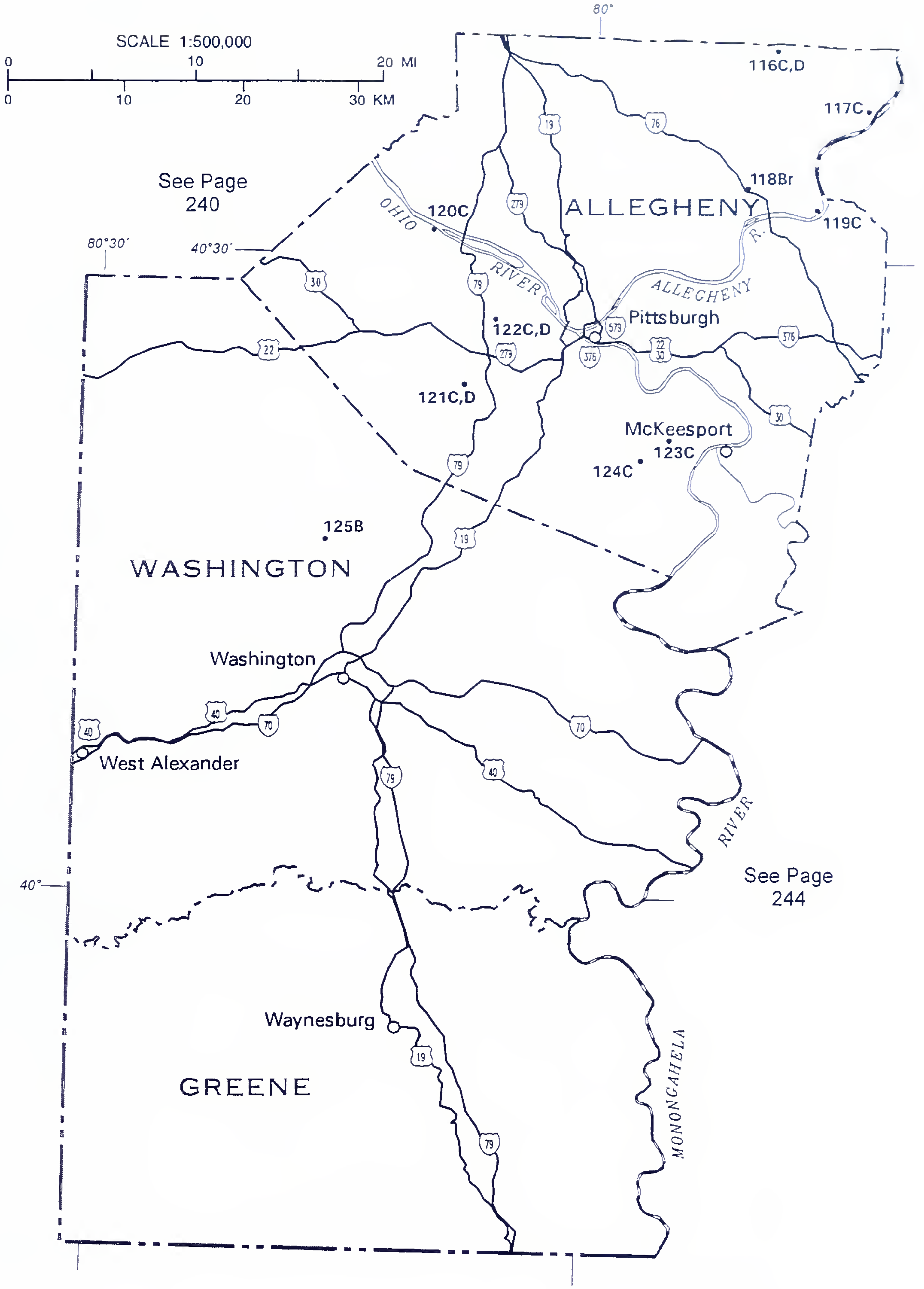

Figure 27. Locations of nonfuel-mineral producers in Allegheny, Washington, and Greene Counties, Pennsylvania.

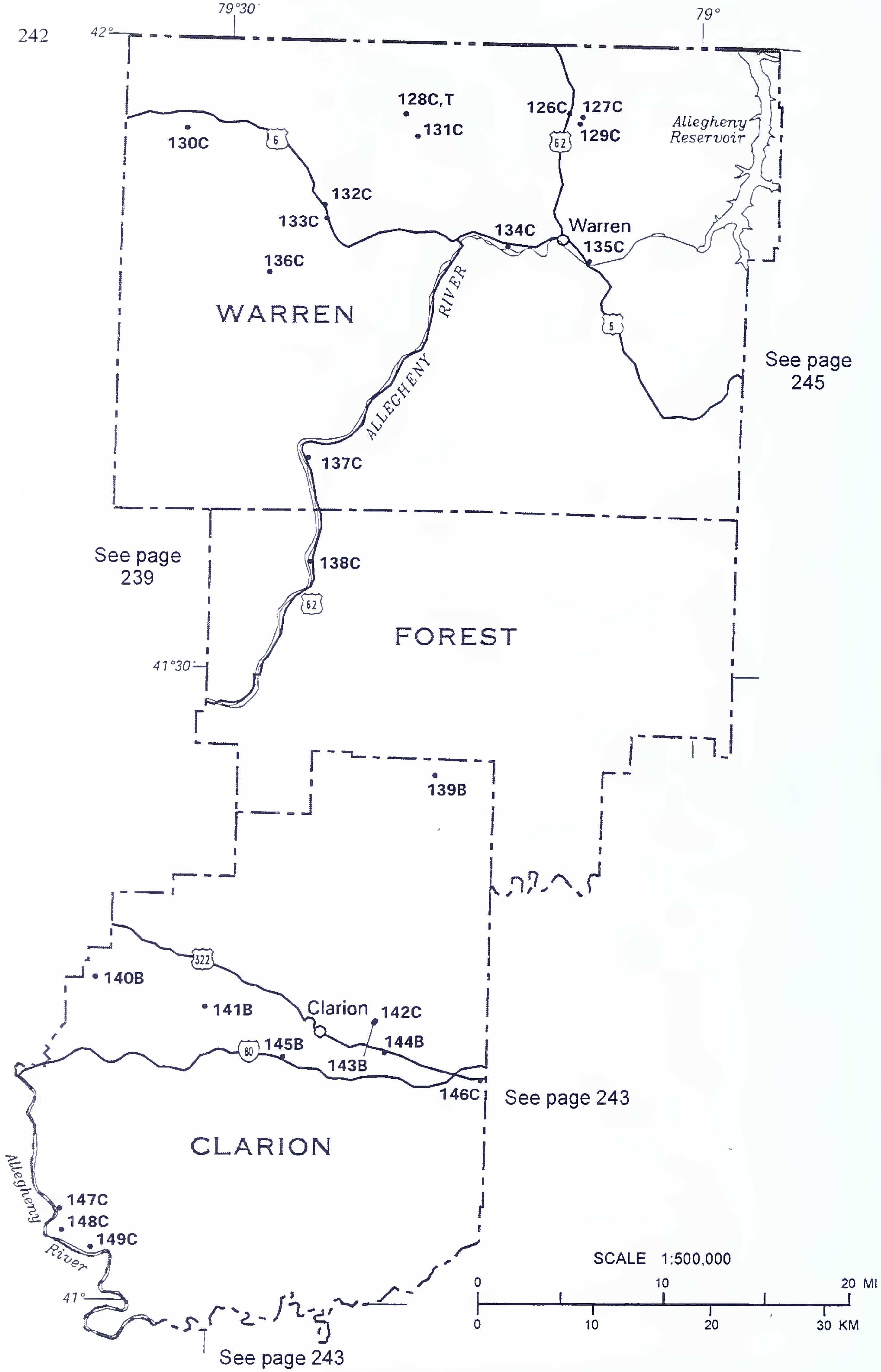

Figure 28. Locations of nonfuel-mineral producers in Warren, Forest, and Clarion Counties, Pennsylvania.

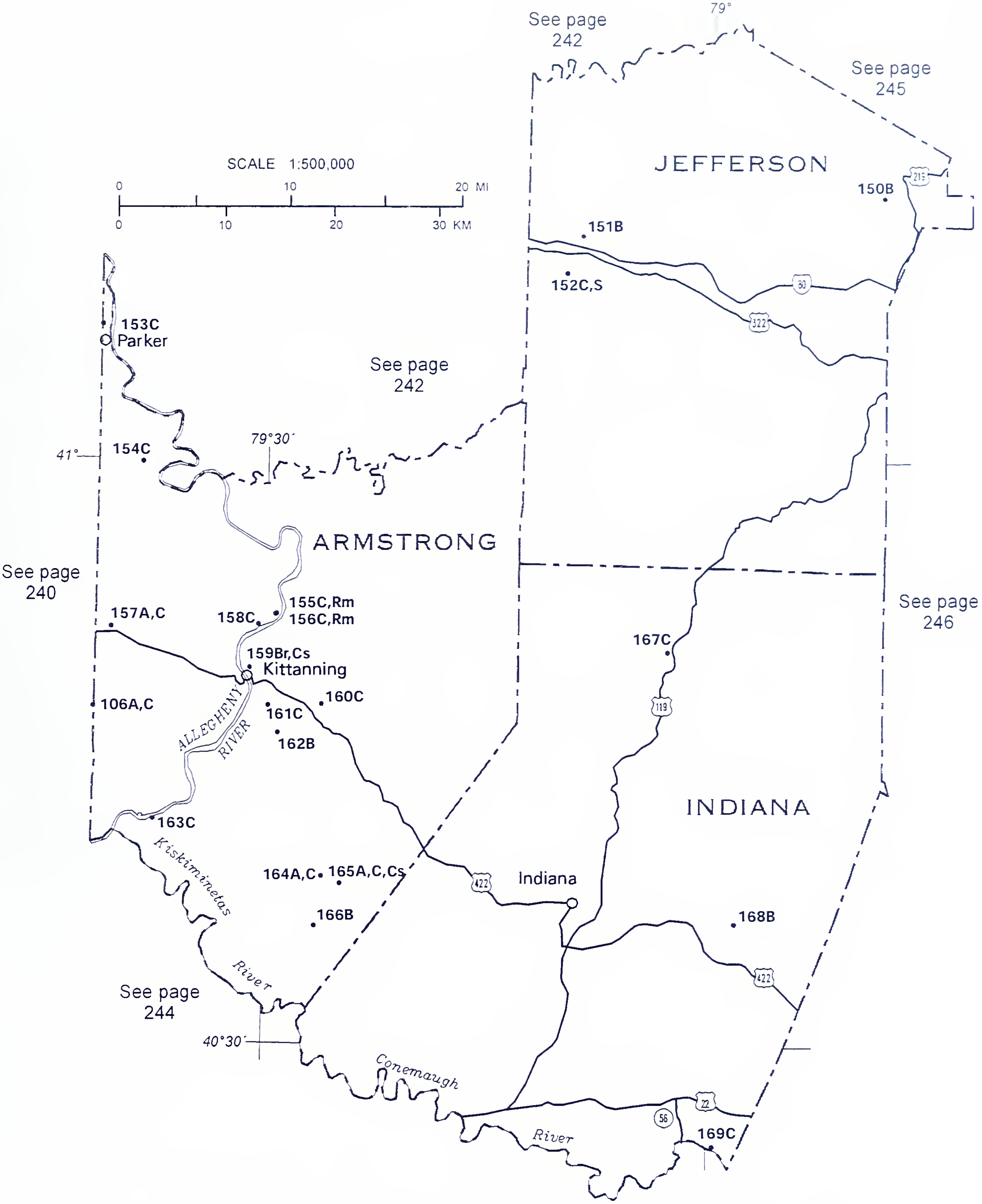

Figure 29. Locations of nonfuel-mineral producers in Indiana, Jefferson, and Armstrong Counties, Pennsylvania.

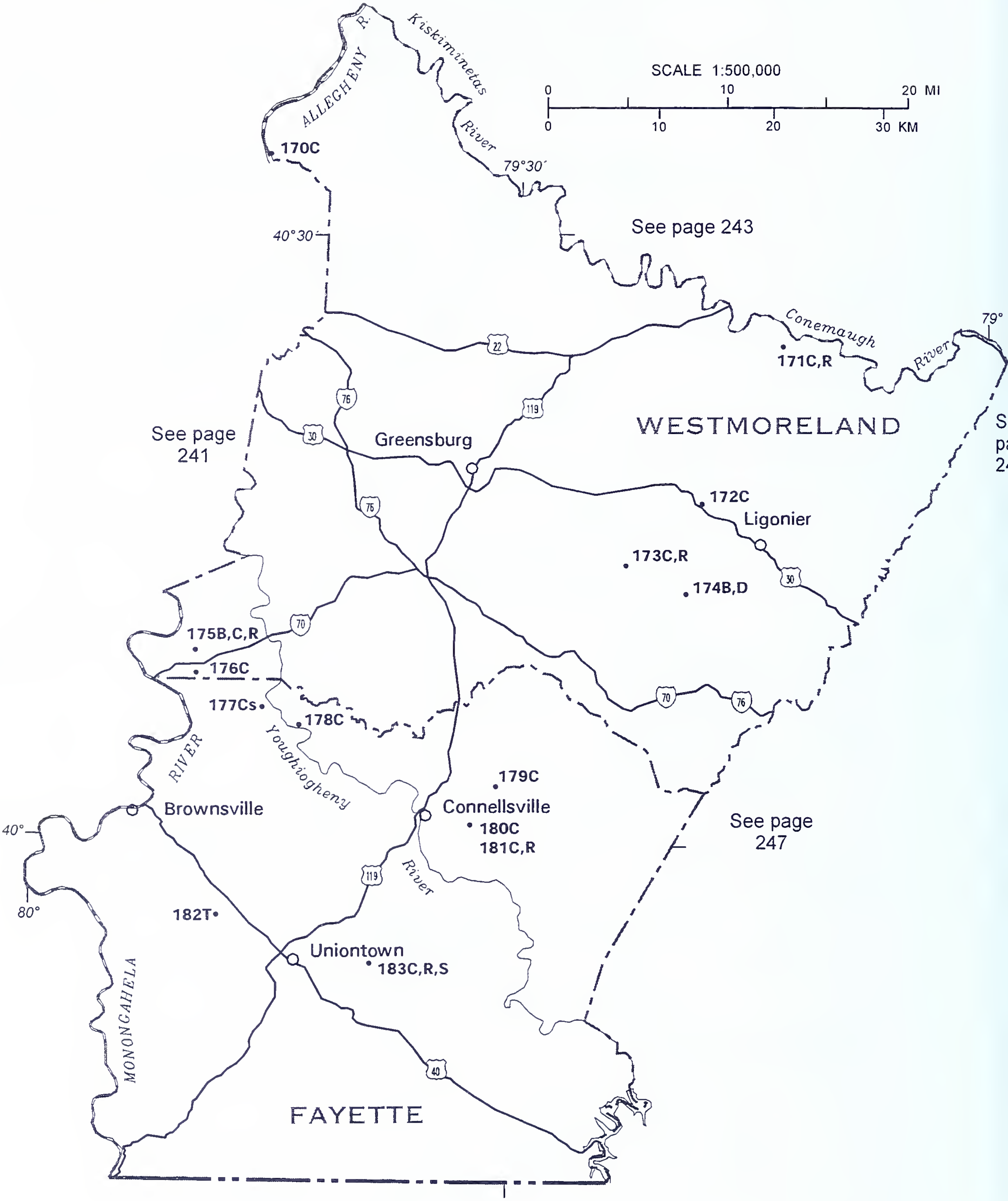

Figure 30. Locations of nonfuel-mineral producers in Fayette and Westmoreland Counties, Pennsylvania.

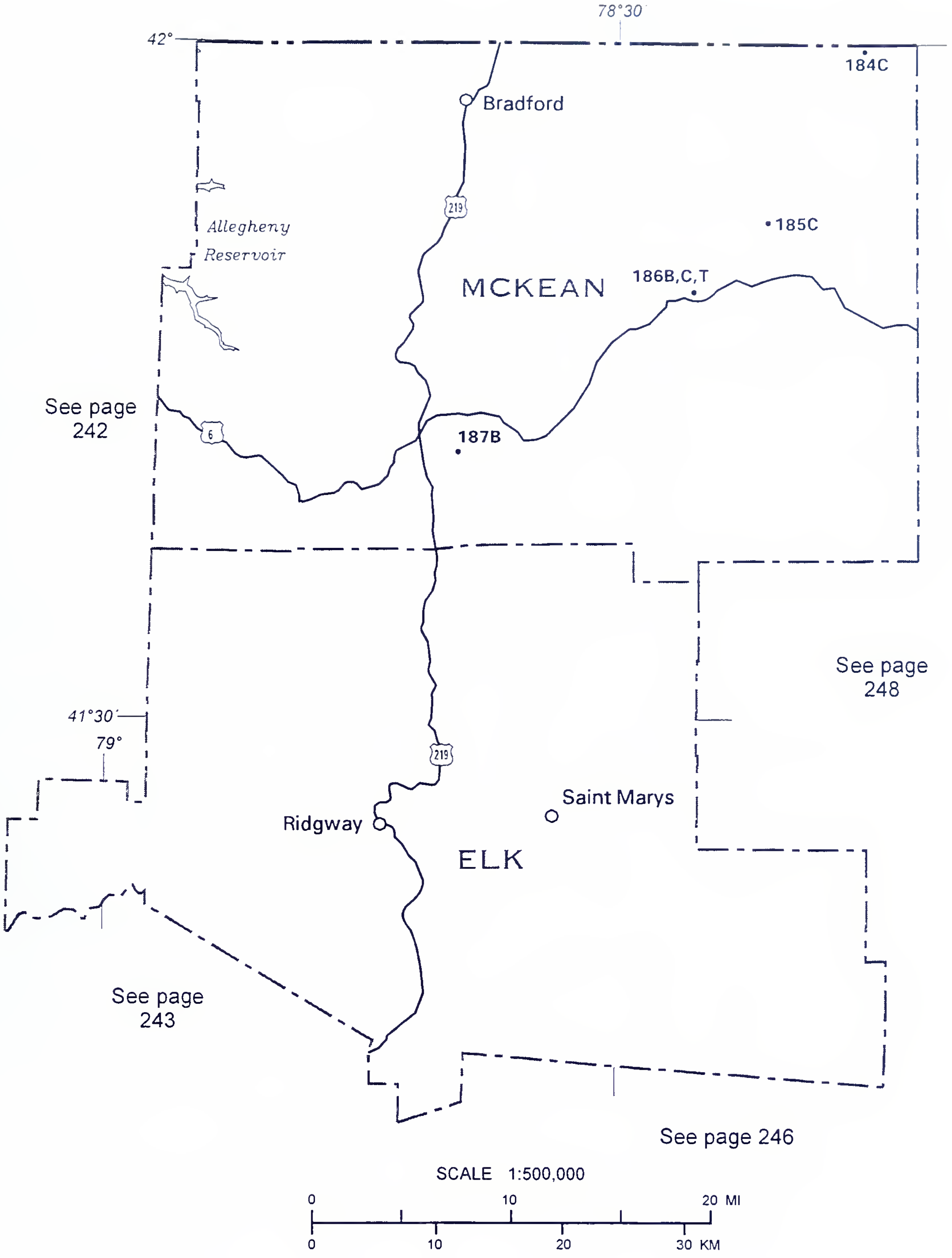

Figure 31. Locations of nonfuel-mineral producers in McKean and Elk Counties, Pennsylvania.

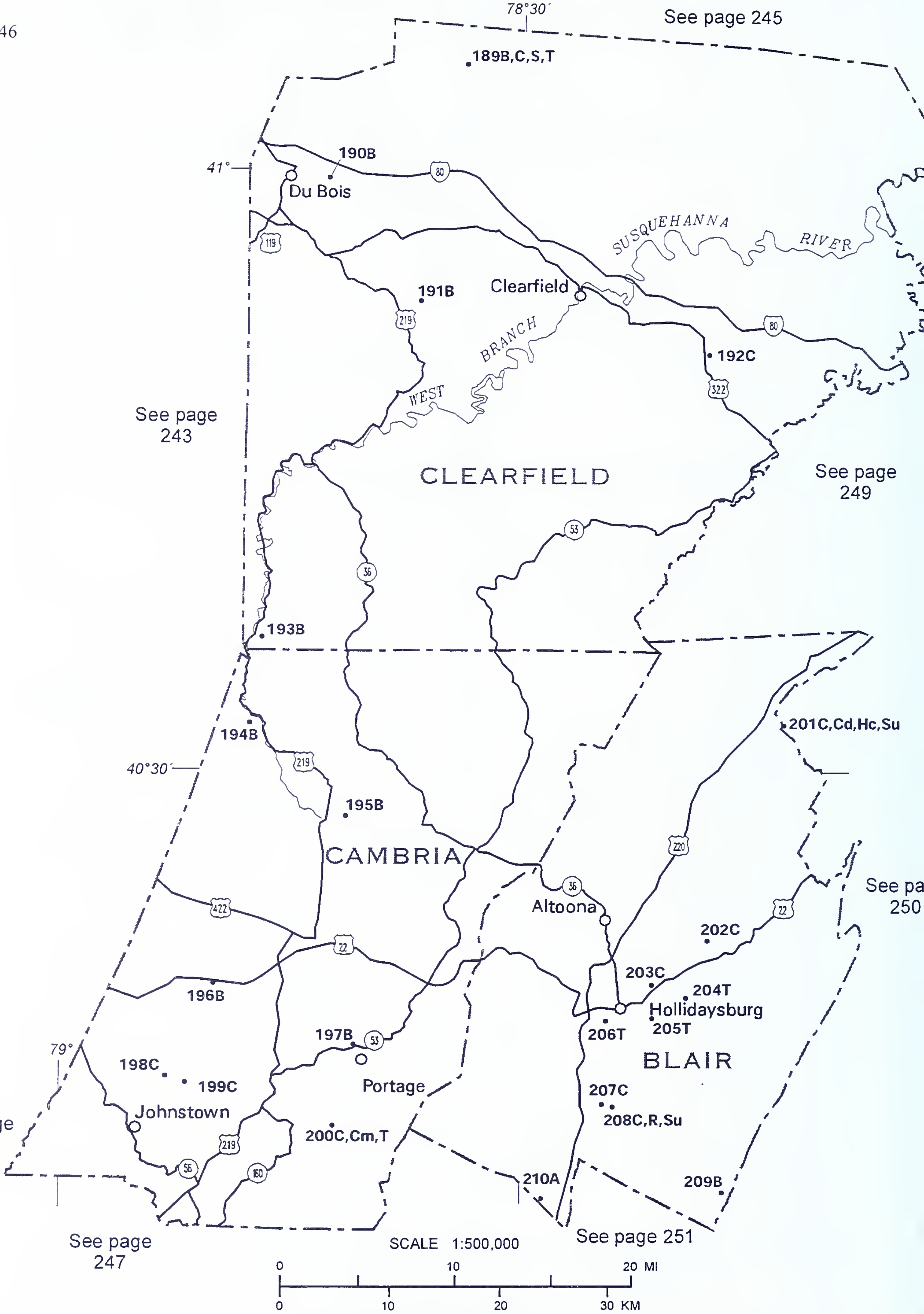

Figure 32. Locations of nonfuel-mineral producers in Clearfield, Cambria and Blair Counties, Pennsylvania.

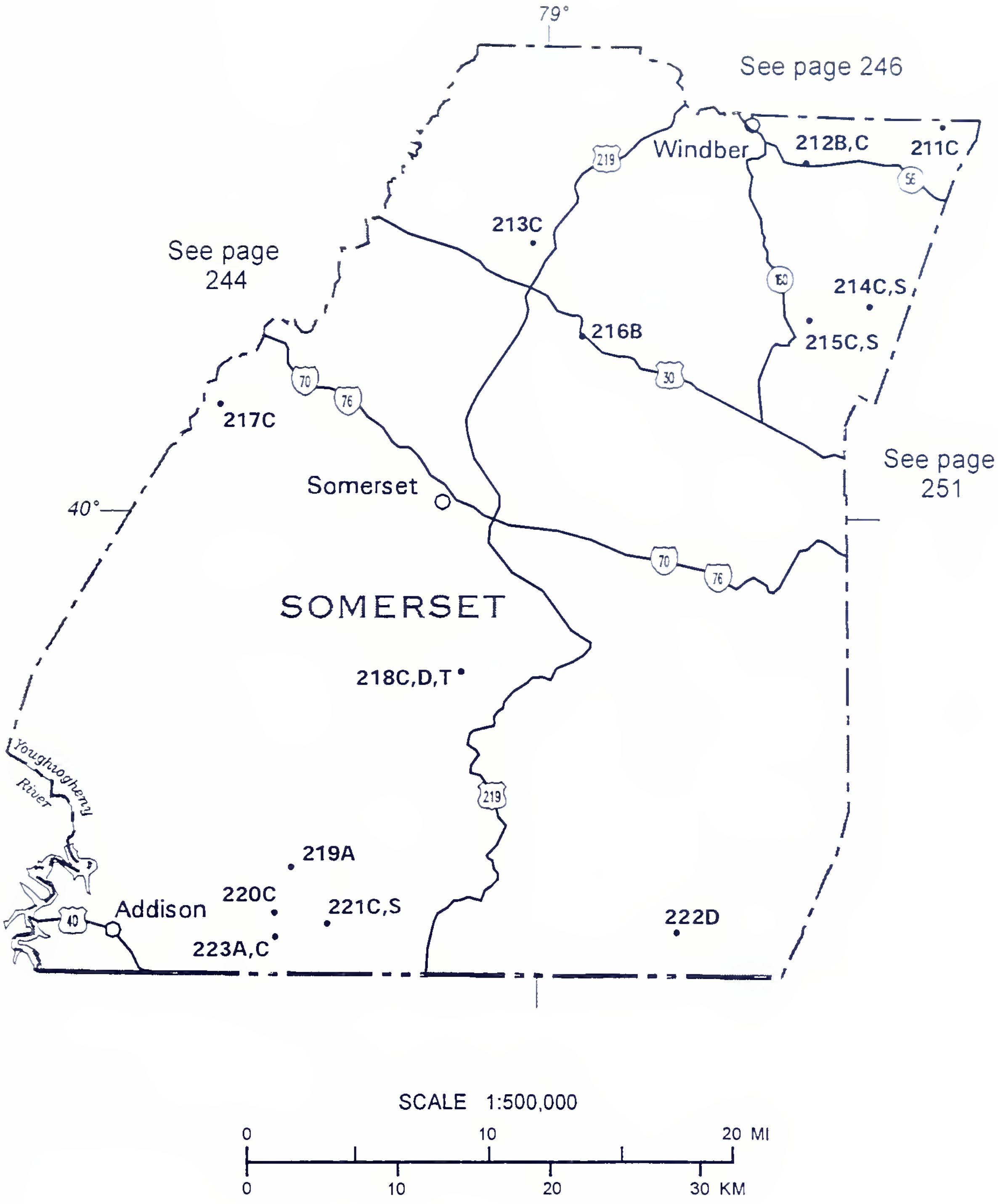

Figure 33. Locations of nonfuel-mineral producers in Somerset County, Pennsylvania.

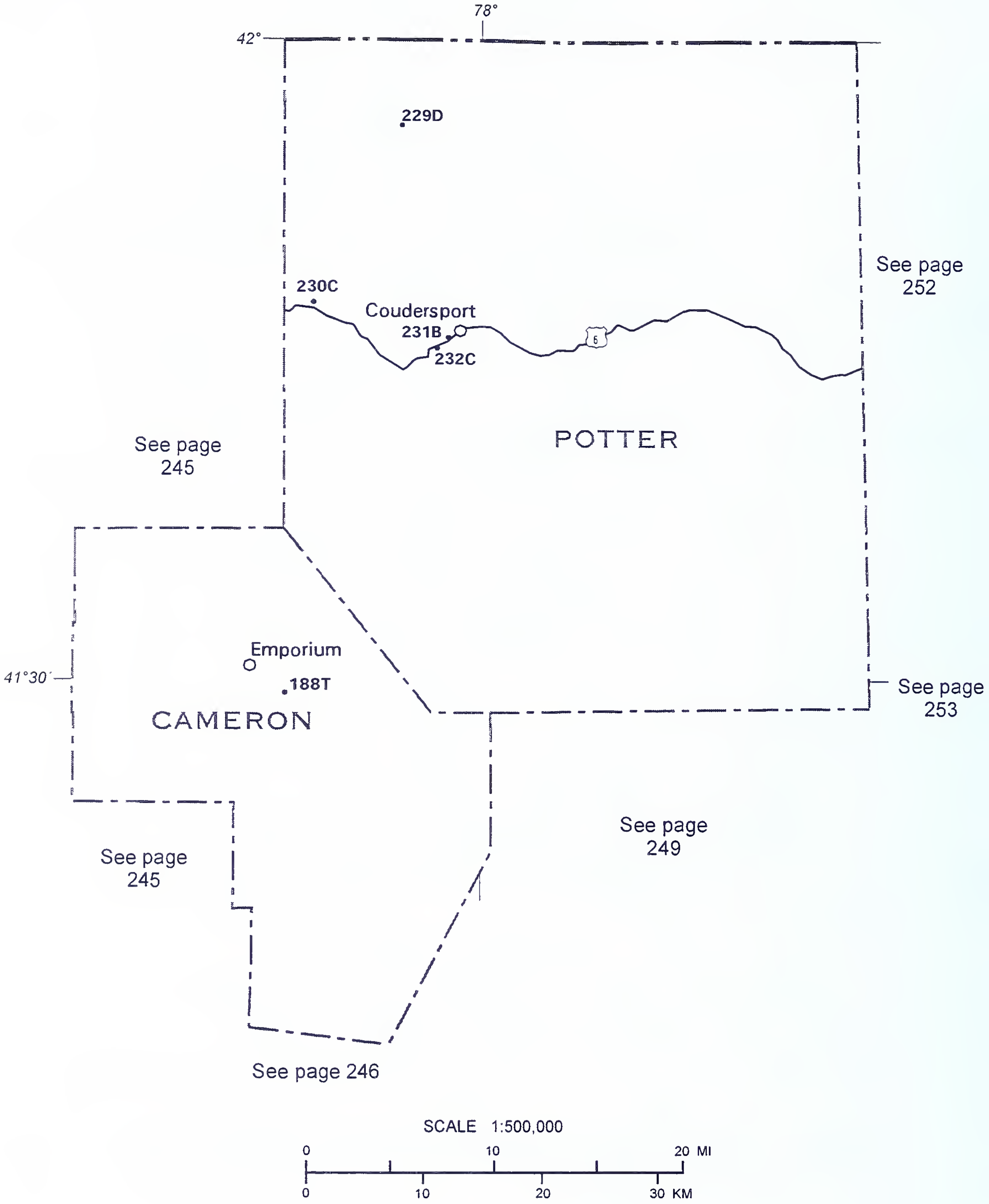

Figure 34. Locations of nonfuel-mineral producers in Potter and Cameron Counties, Pennsylvania.

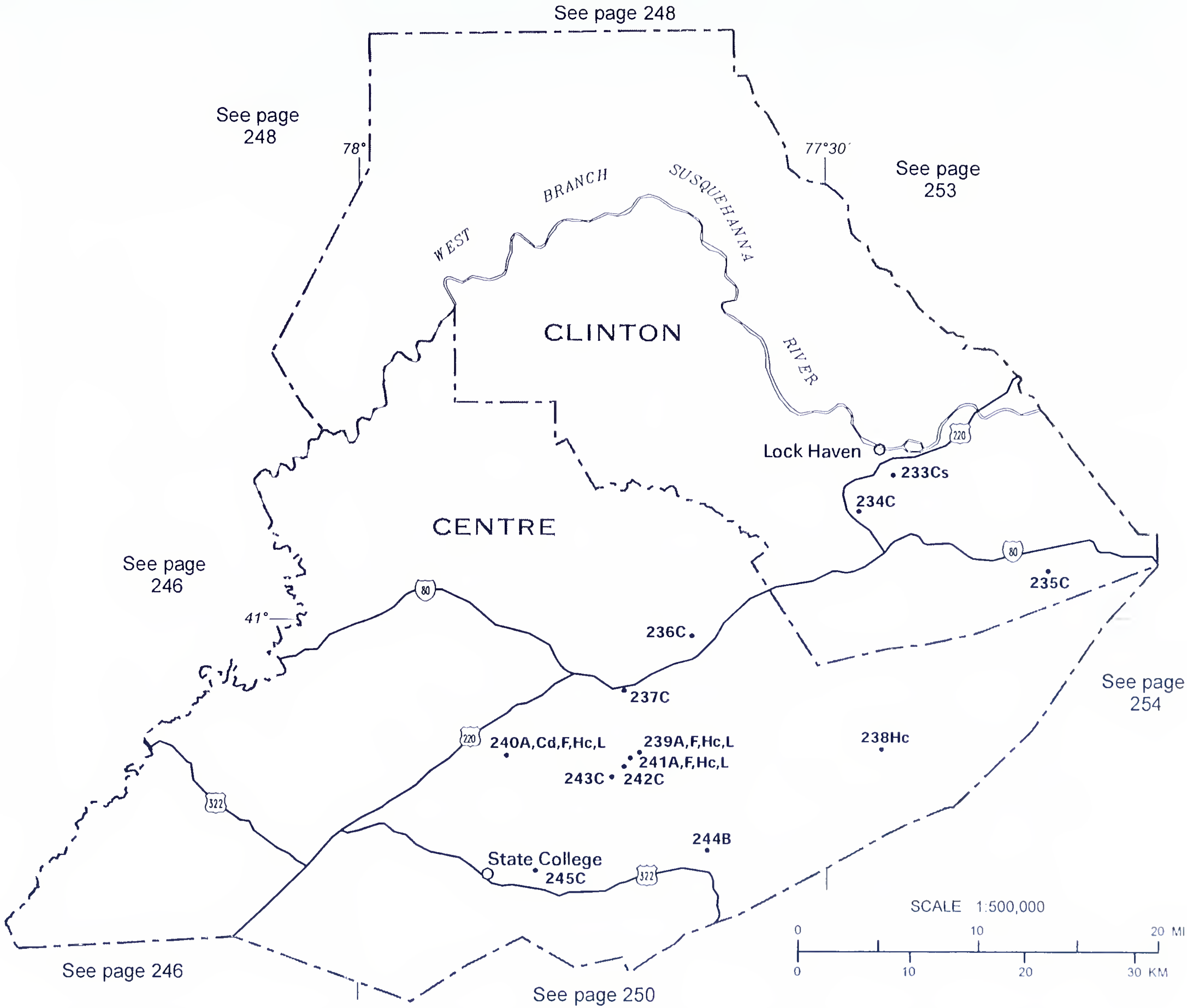

Figure 35. Locations of nonfuel-mineral producers in Centre and Clinton Counties, Pennsylvania.

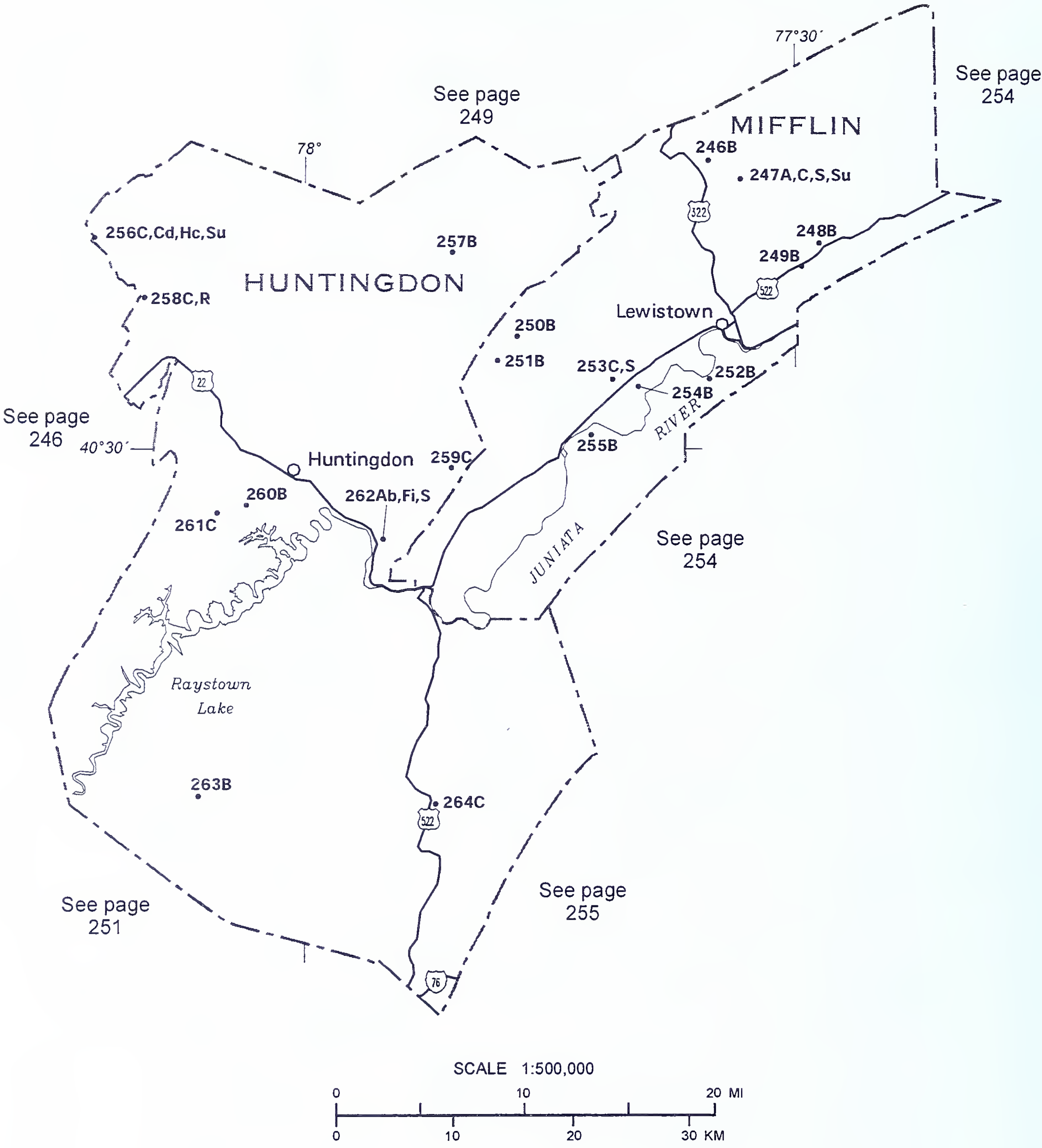

Figure 36. Locations of nonfuel-mineral producers in Huntingdon and Mifflin Counties, Pennsylvania.

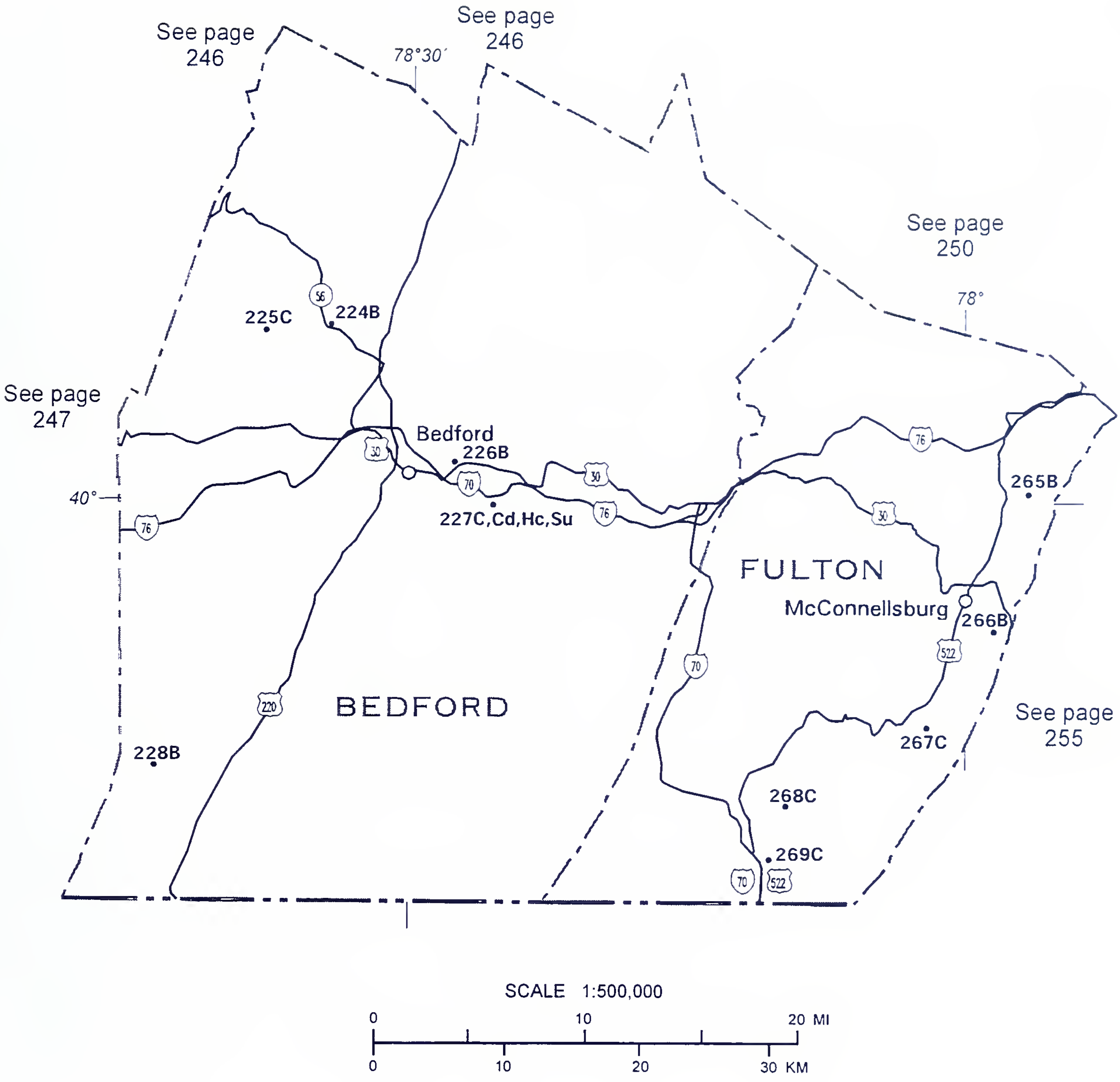

Figure 37. Locations of nonfuel-mineral producers in Bedford and Fulton Counties, Pennsylvania.

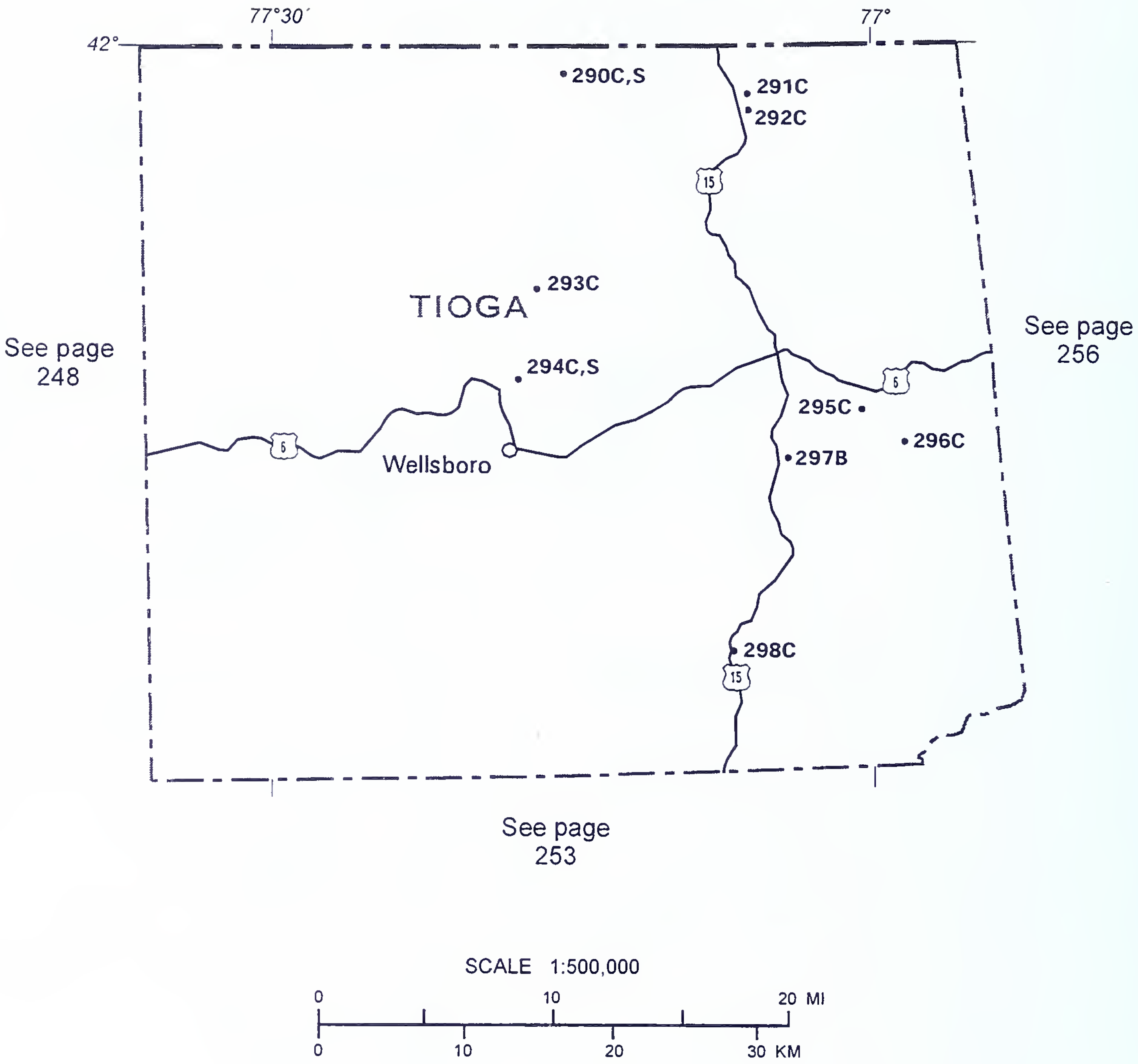

Figure 38. Locations of nonfuel-mineral producers in Tioga County, Pennsylvania.

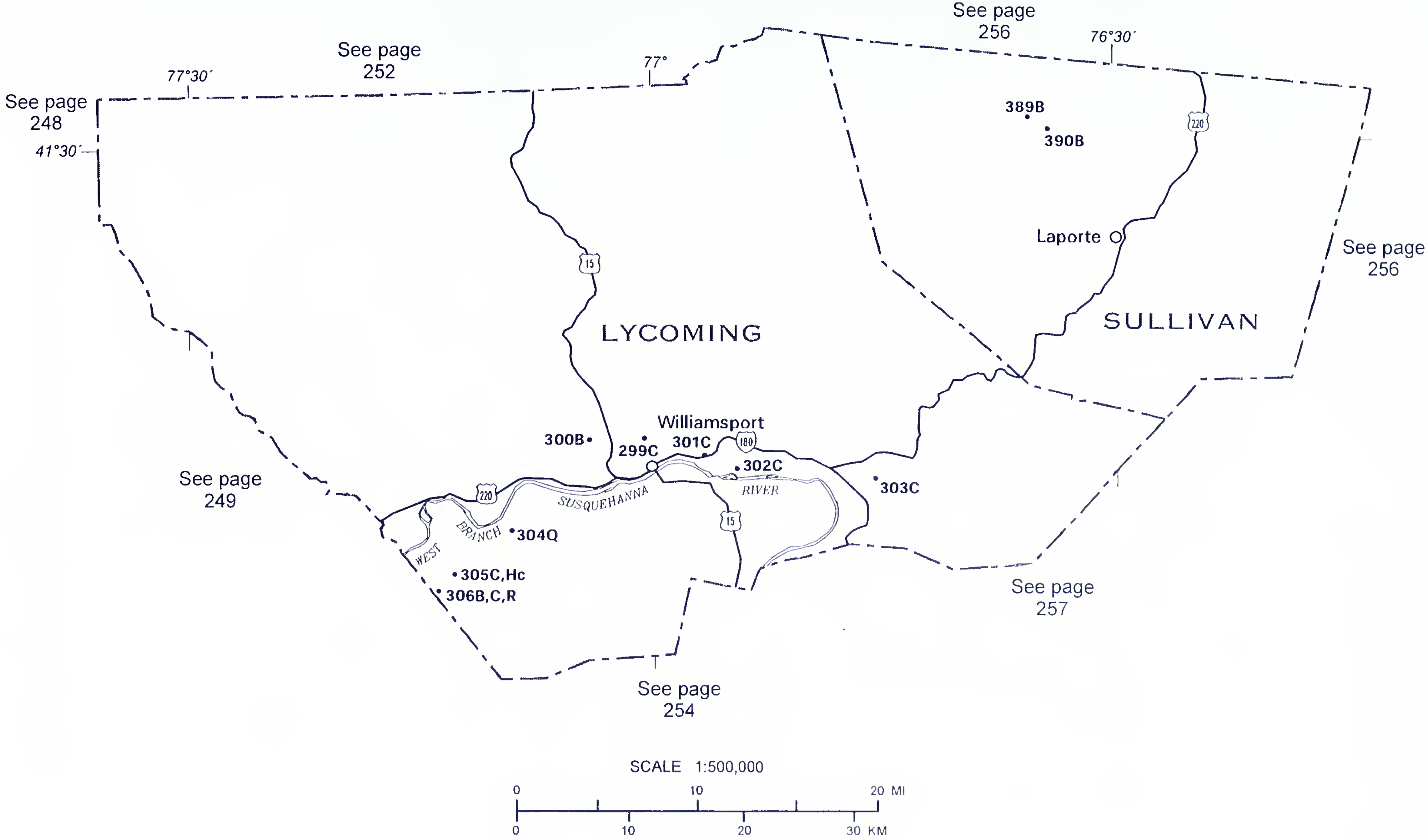

Figure 39. Locations of nonfuel-mineral producers in Lycoming and Sullivan Counties, Pennsylvania.

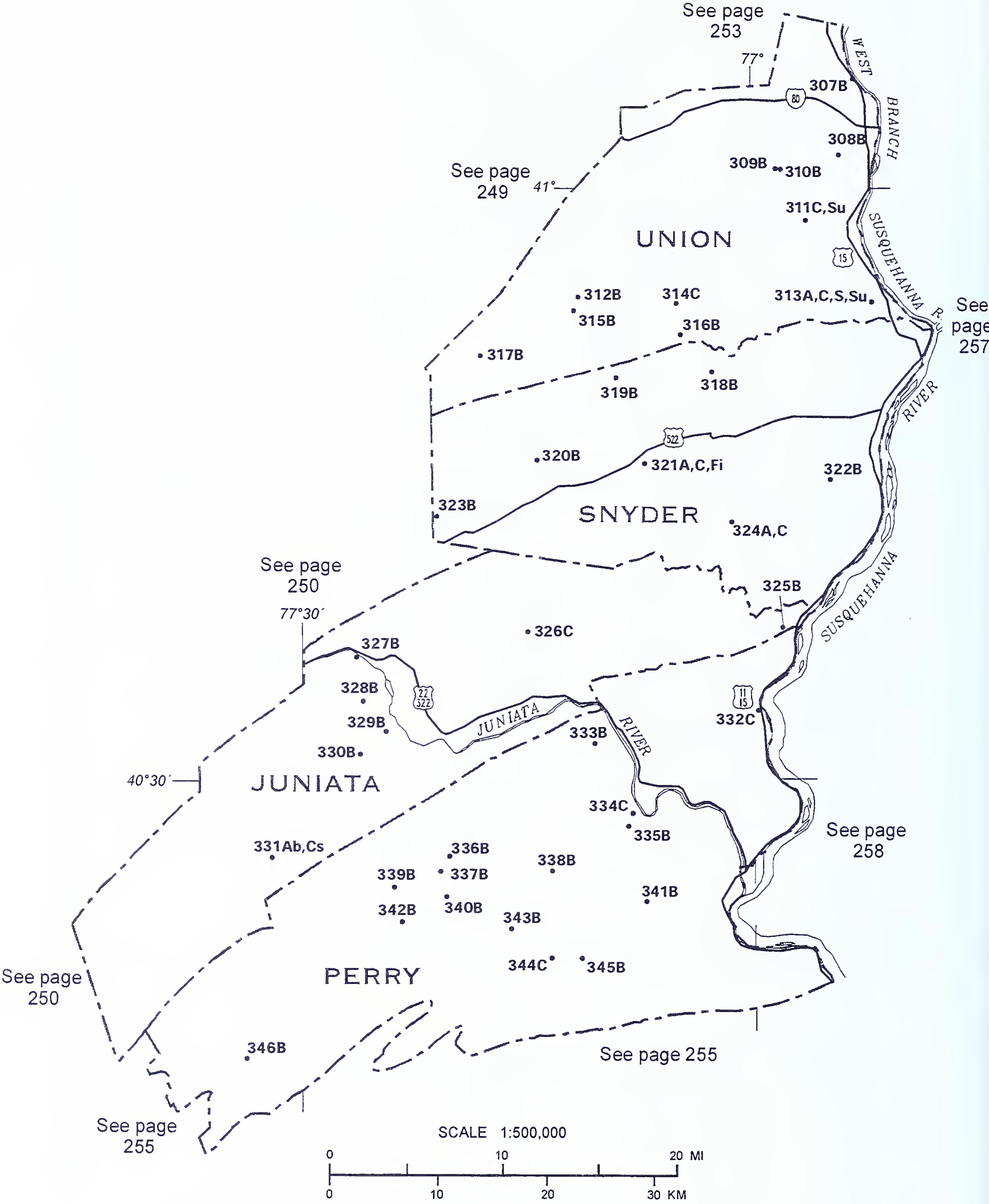

Figure 40. Locations of nonfuel-mineral producers in Perry, Juniata, Snyder, and Union Counties, Pennsylvania.

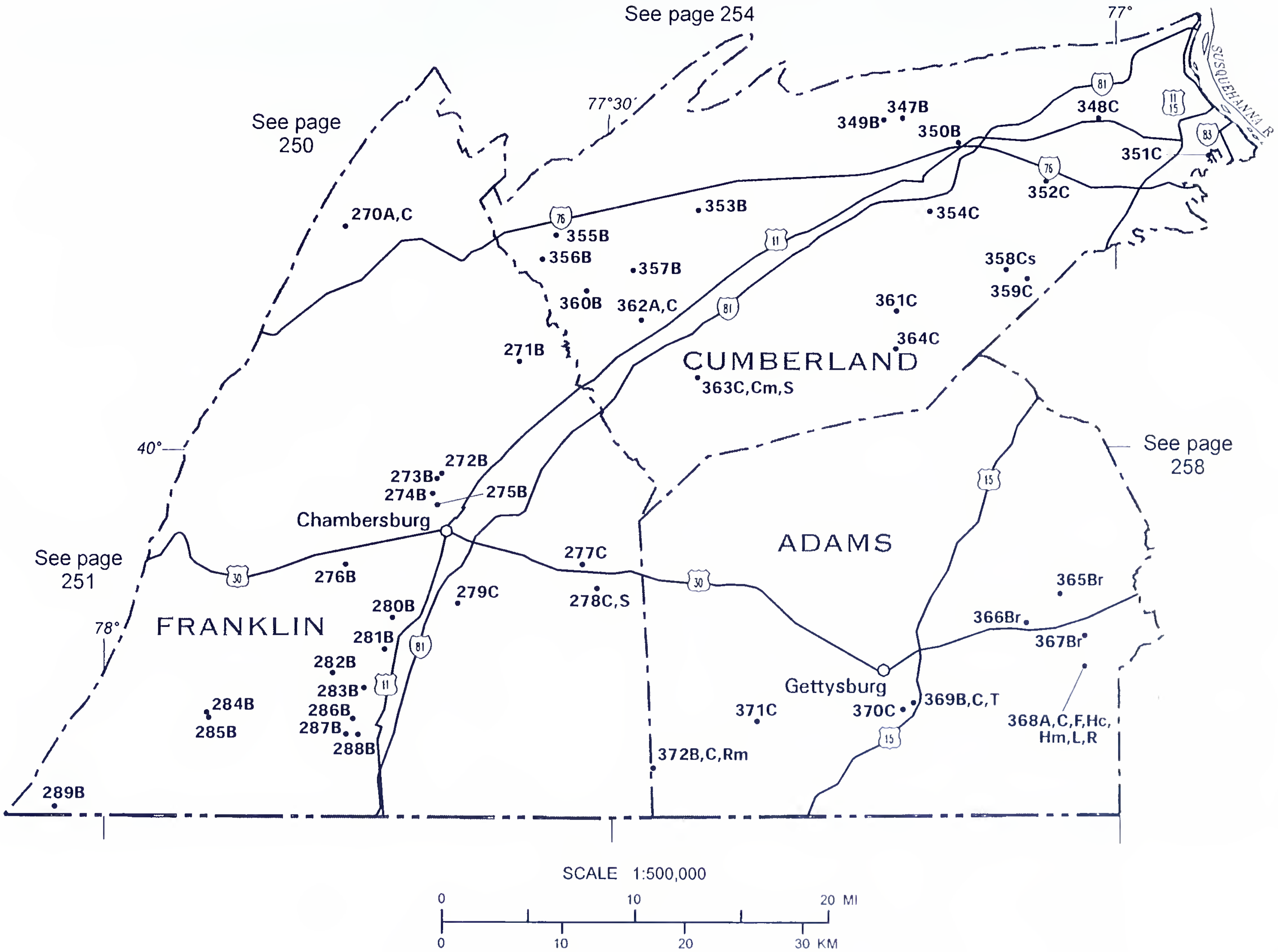

Figure 41. Locations of nonfuel-mineral producers in Franklin, Adams, and Cumberland Counties, Pennsylvania.

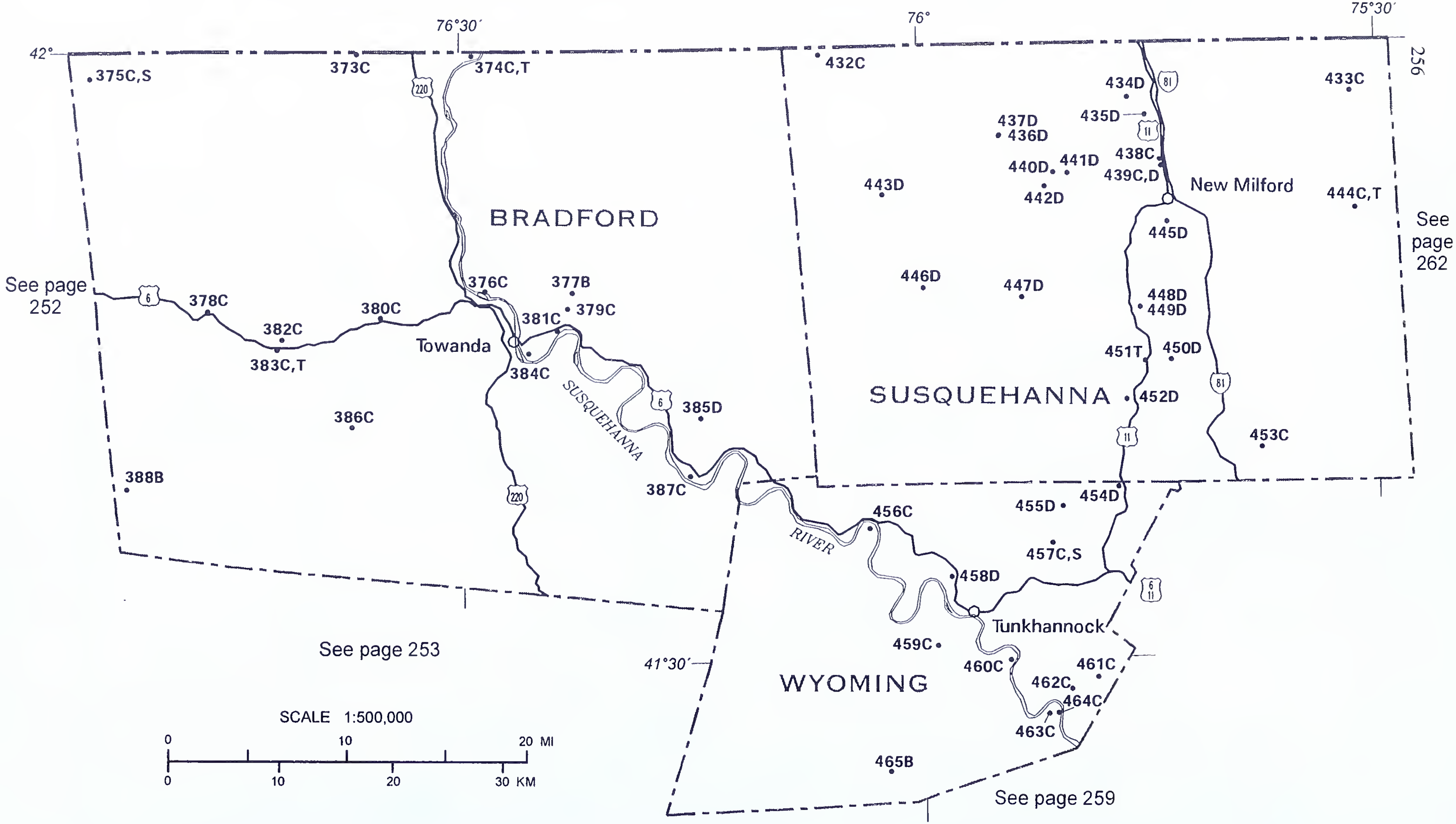

Figure 42. Locations of nonfuel-mineral producers in Bradford, Susquehanna, and Wyoming Counties, Pennsylvania.

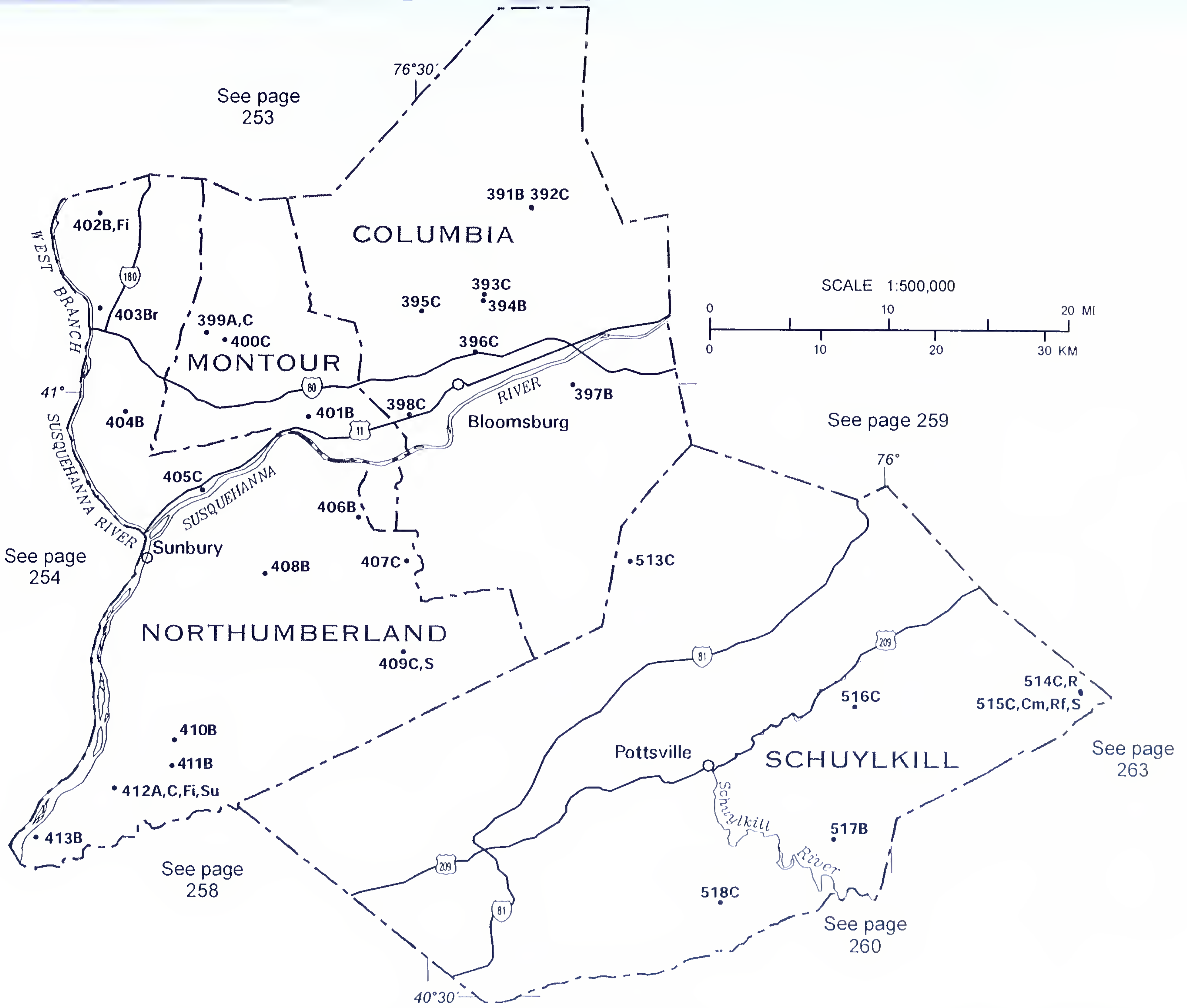

Figure 43. Locations of nonfuel-mineral producers in Northumberland, Schuylkill, Columbia, and Montour Counties, Pennsylvania.

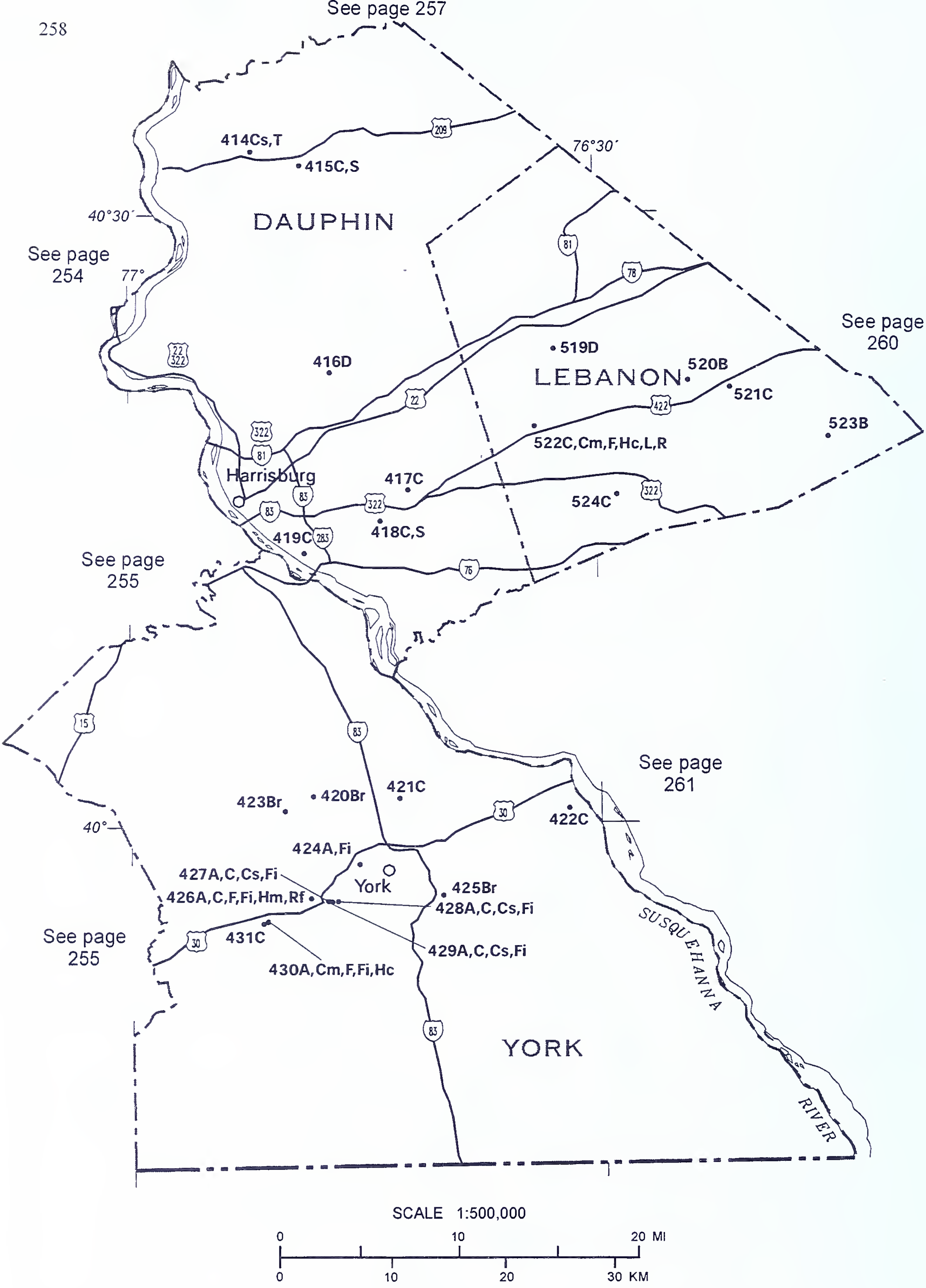

Figure 44. Locations of nonfuel-mineral producers in York, Dauphin, and Lebanon Counties, Pennsylvania.

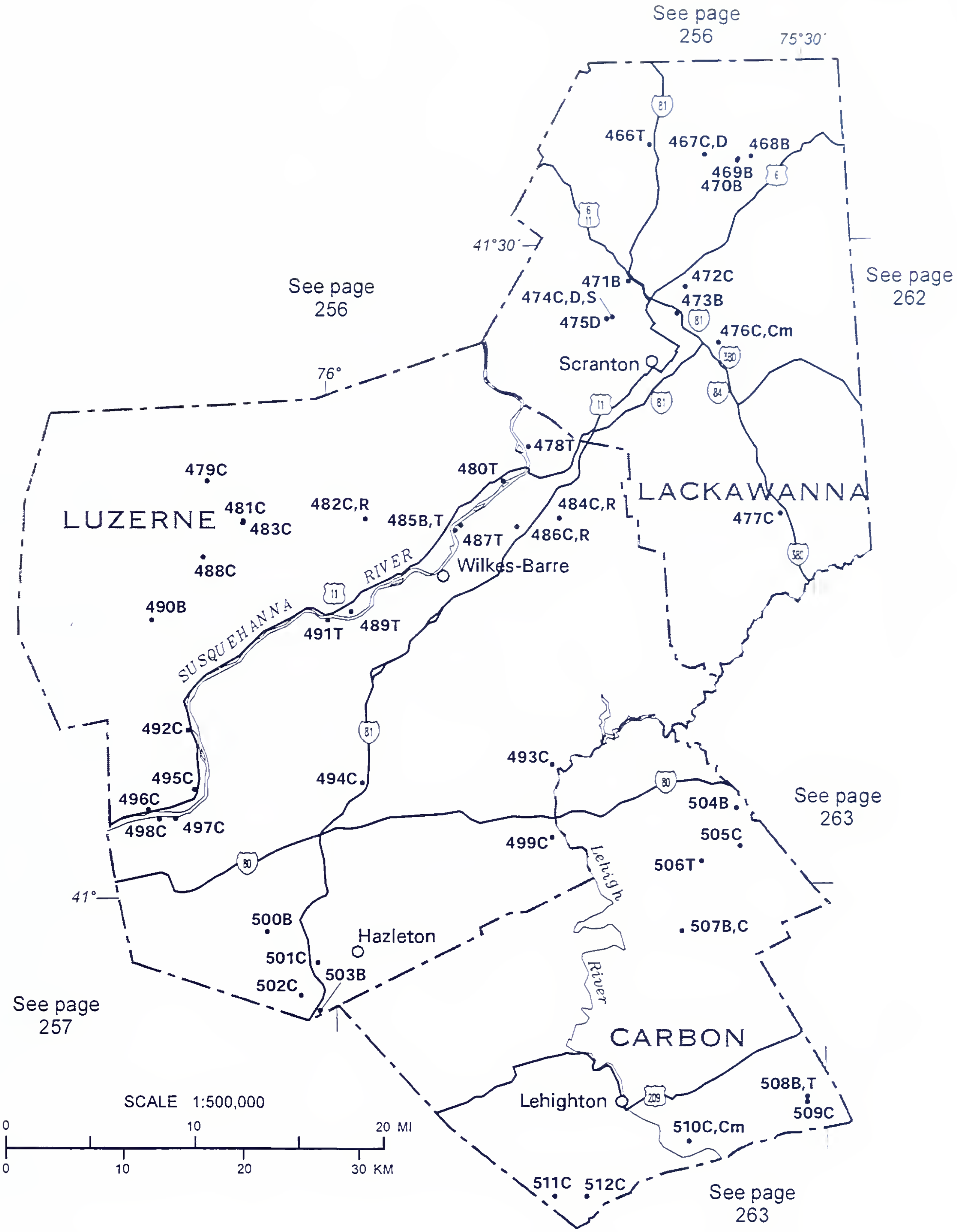

Figure 45. Location of nonfuel-mineral producers in Luzerne, Lackawanna, and Carbon Counties, Pennsylvania.

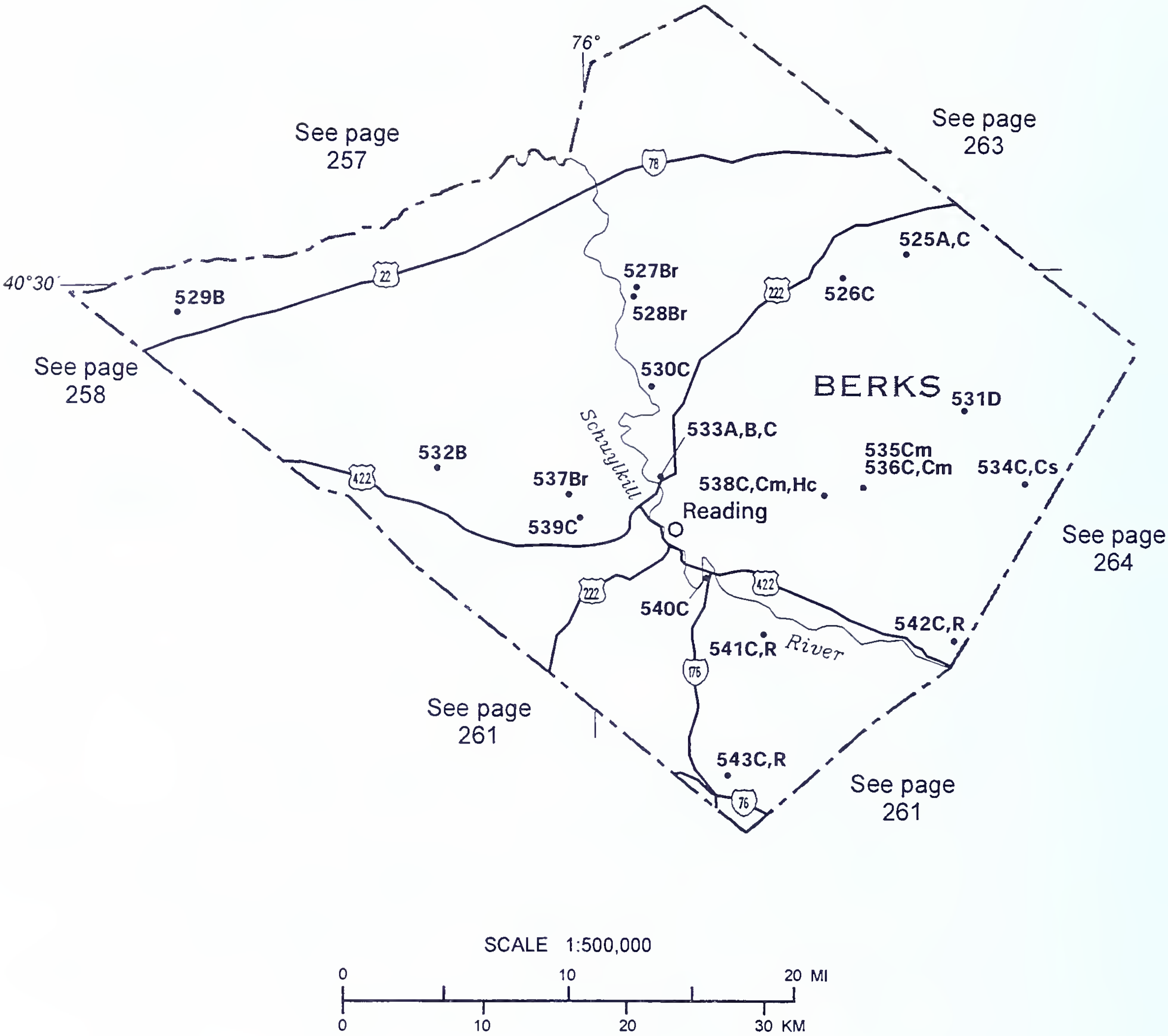

Figure 46. Locations of nonfuel-mineral producers in Berks County, Pennsylvania.

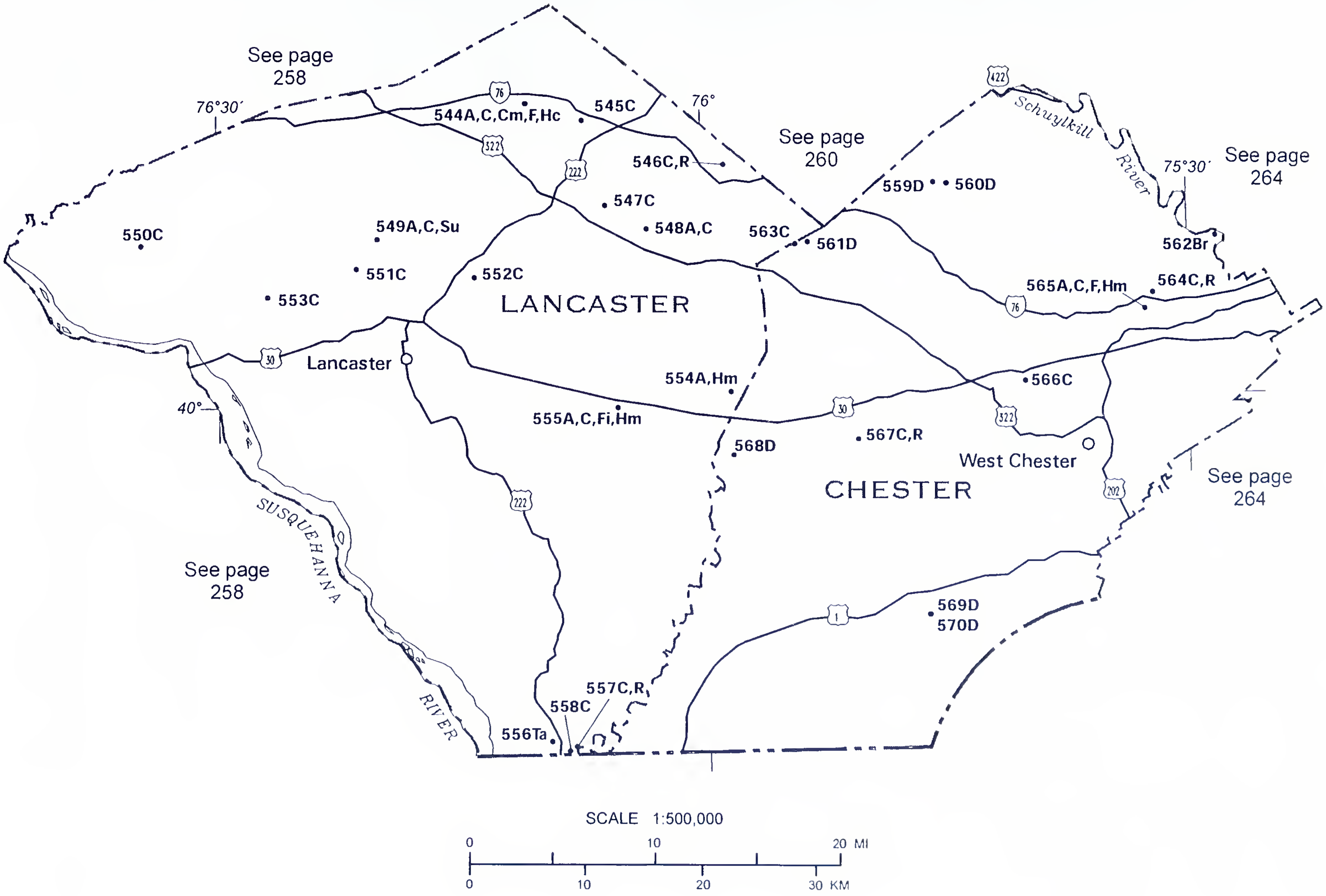

Figure 47. Locations of nonfuel-mineral producers in Lancaster and Chester Counties, Pennsylvania.

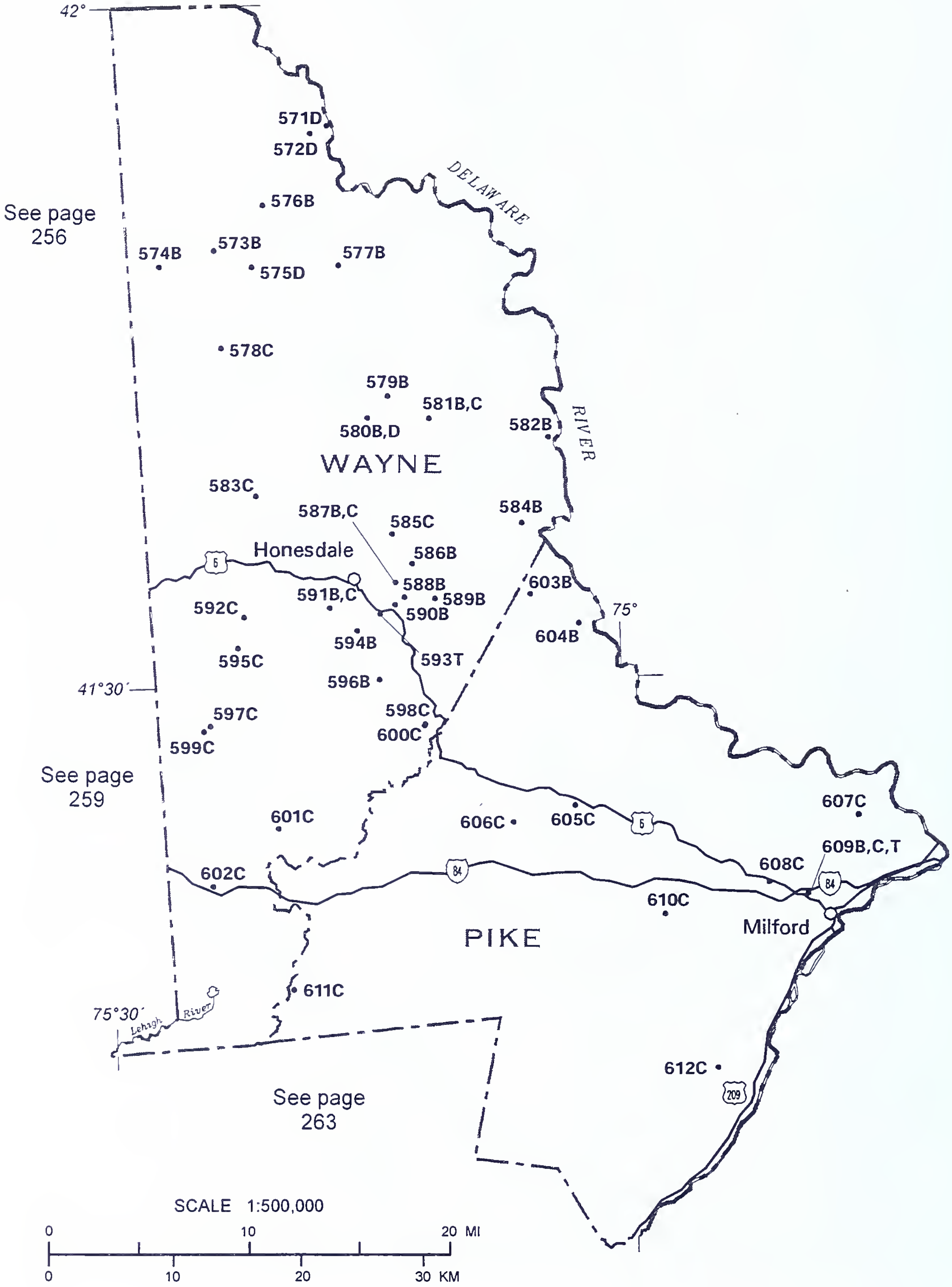

Figure 48. Locations of nonfuel-mineral producers in Wayne and Pike Counties, Pennsylvania.

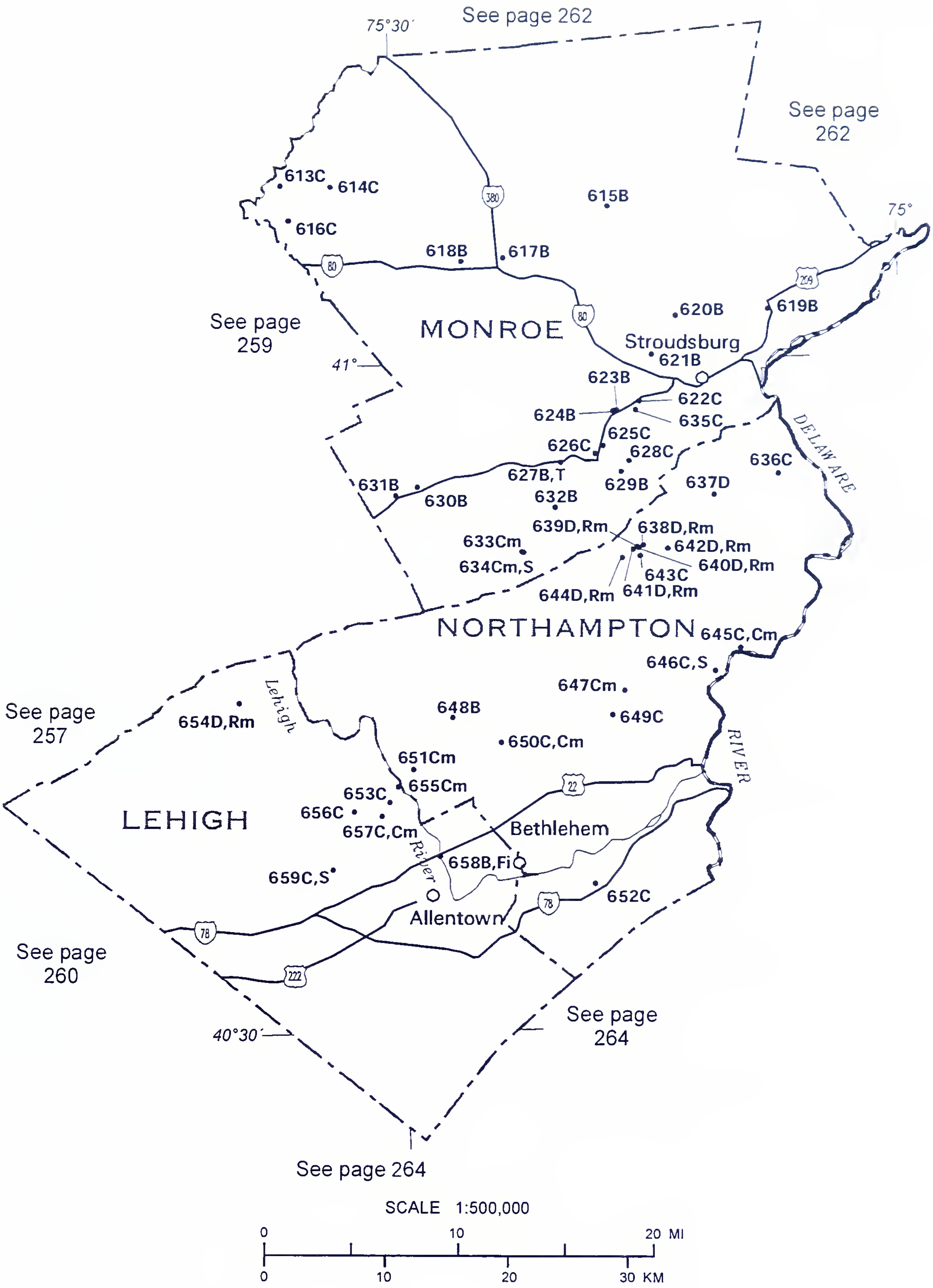

Figure 49. Locations of nonfuel-mineral producers in Monroe, Northampton, and Lehigh Counties, Pennsylvania.

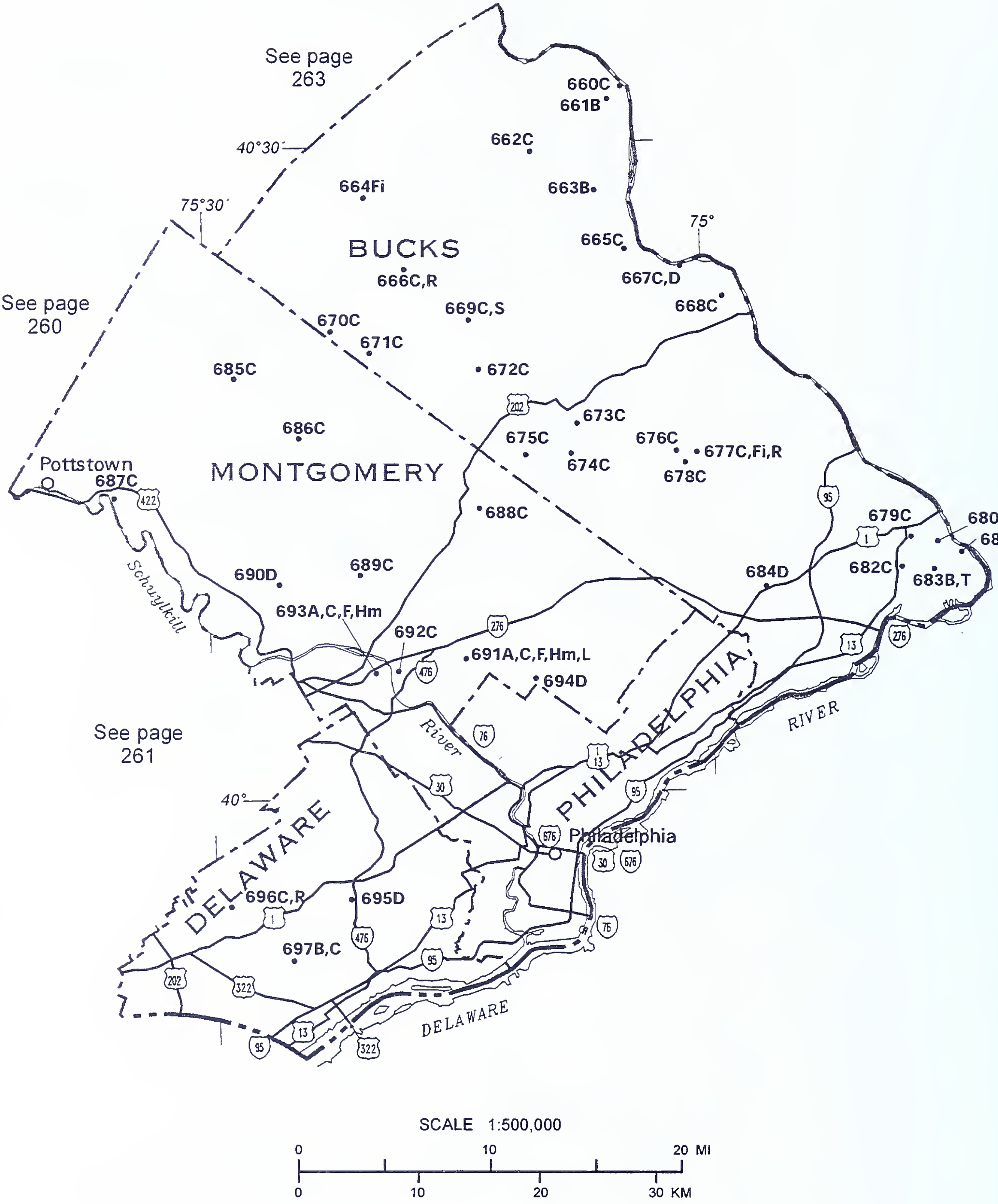

Figure 50. Locations of nonfuel-mineral producers in Bucks, Montgomery, Delaware, and Philadelphia Counties, Pennsylvania.

Map No.	*Producer and operation*	*Pages*
1	Girts Sand and Gravel	128, 222, 231
2	Erie Sand and Gravel Company	128
3	Kress, Gilbert	92
4	Kuhl Sand and Gravel	129
5	Pfadt, John F.	92
6	Hoover Sand and Gravel Company, Inc., Hoover No. 6 pit	129, 231
7	Wroblewski Sand and Gravel, Inc.	130
8	Maybro Asphalt Company	129
9	Hoover Sand and Gravel Company, Inc., Hoover No. 9 pit	129, 231
10	Afton Trucking, Inc., West Greene pit	127
11	Erie Aggregates, Inc.	128
12	Afton Trucking, Inc., Valley Road pit	127
13	Northwest Gravel Company	129
14	Over Lake, Inc.	130
15	Bedrock Sand and Gravel, Inc.	127
16	Sibleyville Land and Gravel Company	130, 232
17	Grubbs, Elwood M.	128
18	Munsee Sand and Gravel	92
19	Troyer, Mervin	154, 232
20	Colvin, Roy L.	128
21	Showman, Raymond D., and Sons, Inc.	130
22	Burawa, Joseph	127
23	Kovschak, James	92
24	Burdick, Vance E.	127
25	Gingerich, Daniel E.	91
26	Bechtel, James B., Excavating	28, 123
27	Berlin, Daniel E.	91
28	Snow, Dale G., Excavating	126
29	McMahon, David L. and Sandra	125
30	Dehart, Robert	91
31	Wallis, Donald R.	126
32	Meadville Redi-Mix Concrete, Inc., Woodcock Township pit	125
33	Watson, Robert E. and Ruth Ann	37, 126, 231
34	Oskin, David L.	91, 230
35	Barnhart, Sam H., and Son	123
36	Agnew, Bryan M.	37
37	Sterling, Ramon L.	126
38	Thompson, William J. and Sue A.	91
39	Smock, Mrs. Robert L.	126
40	Cornell, Edward	28, 124
41	Hasbrouck Sand and Gravel, Inc.	124
42	Foust, Virgil	124
43	Conneaut Lake Sand and Gravel, Inc.	123
44	Shevitz, Walter	125
45	Lakeland Sand and Gravel, Inc.	124
46	Meadville Redi-Mix Concrete, Inc., No. 1 pit	125
47	Dunn, W.L., Construction Company	124
48	Meadville Redi-Mix Concrete, Inc., No. 2 pit	125
49	Hoobler, Philip	137
50	Shenango Valley Sand and Gravel	137
51	Cline, J.J.	93
52	White Rock Silica Sand Company	158
53	Ebbert, Gregory R.	26
54	H & H Materials	136
55	Taylor, J., Sand and Gravel Company	137
56	Seidle Sand and Gravel, Inc.	137
57	Hoffman, Roger L.	136
58	McDowell, John H.	93
59	Atlantic States Materials of Pennsylvania	136, 222
60	G & G Ag Service, Inc.	136
61	Leali Brothers Excavating, Inc.	29
62	Lark, Donald, and Sons	137
63	Tionesta Sand and Gravel, Inc., Chapmanville pit	94
64	Cooperstown Sand and Gravel	142
65	IA Construction Corporation, Burkhardt pit	143
66	Huff, Carl E.	142
67	Vincent Excavating and Gravel	143
68	Tionesta Sand and Gravel, Inc., Franklin pit	94
69	Klapec, Michael J.	163
70	Stover, Arthur L.	59
71	Adams, G. L., Excavating	94
72	Marlowe, Paul A.	143
73	Hamilton, James F.	25, 132, 232
74	Buchowski, James L., Excavating	131
75	Medure, A., Sand and Gravel Co., Inc., Neely pit	93
76	Cooper Brothers, Inc., Scott Township pit	131
77	Drespling, John L.	132
78	Neshannock Sand and Gravel, Inc.	132
79	Cooper Brothers, Inc., Scott Township No. 2 pit	132
80	McKnight, G.L., Inc.	132
81	Book, Harold E.	28, 131
82	B & P Slag Corporation	170
83	Atlantic States Limestone of Pennsylvania	103
84	Rose Point Sand and Gravel, Rhodes mine	133
85	Elliott, R. W., and Sons, Inc.	170
86	Quality Aggregates, Inc., Princeton quarry	104
87	S & S Processing	233
88	Russell Minerals, Inc., Caravella pit	76, 133, 222
89	Medusa Aggregates Company	19, 104
90	Medure, A., Sand and Gravel Co., Inc., Isabella pit	92
91	Russell Minerals, Inc., Johnson Farm pit	133
92	Medusa Cement Company	74
93	Medure, A., Sand and Gravel Co., Inc., Wayne Township pit	103
94	Slippery Rock Materials	133
95	Allegheny Mineral Corporation, Harrisville quarry	17, 79, 98, 190, 195
96	Quality Aggregates, Inc., Baker quarry	98
97	Quality Aggregates, Inc., Boyers quarry	98
98	Parker Sand and Gravel Company	122
99	Allegheny Mineral Corporation, Slippery Rock quarry	17, 81, 98, 191, 195
100	Elliott, William M.	122
101	Cooper Brothers, Inc., Slippery Rock No. 2 pit	121
102	Cooper, H.W., Builders Supply, Inc.	121
103	Cooper Brothers, Inc., Slippery Rock No. 1 pit	121
104	Rose Point Sand and Gravel, Cooper mine	122
105	Raducz Stone Corporation	175
106	Winfield Lime and Stone Co., Inc.	17, 98
107	GB Sand Company, Inc.	118
108	International Mill Service, Inc., Beaver Falls slag bank	63, 168, 209
109	Darlington Ready Mix Company	118
110	Darlington Brick and Clay Products	66
111	PMAC, Ltd.	169
112	Darlington Brick and Clay Products	66
113	International Mill Service, Inc., Midland slag bank	63, 168, 210
114	Jerart, Inc.	169

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115	Darlington Brick and Clay Products, White property	66
116	Collier Stone Company, North Allegheny quarry	148, 174
117	Heights Plaza Materials	148, 168
118	Redland Brick, Inc.	68
119	Lane Construction	116
120	Lafarge Construction Materials, Thaddus Carr dredge	116
121	Collier Stone Company, McShane quarry	148, 174
122	Collier Stone Company, Kisow quarry	148, 173
123	Lafarge Construction Materials, Duquesne slag bank	168
124	Lafarge Construction Materials, Brown Reserve slag bank	168
125	Pawlosky, Anthony J.	25
126	Briggs, Gerry R.	94
127	Tionesta Sand and Gravel, Inc., Russell pit	145
128	Allen, John, Excavating, Inc.	94, 235
129	Cable, Dick, Gravel Products	144
130	Jackson and Roth	144
131	Bailey and Turner Gravel	143
132	IA Construction Corporation, General Concrete pit	144
133	Brokenstraw Gravel, Inc.	143
134	IA Construction Corporation, Starbrick dredge	144
135	Yeagle Excavating	145
136	Tionesta Sand and Gravel, Inc., Garland plant	144
137	Tionesta Sand and Gravel, Inc., Tidioute plant	145
138	Kuntz, Jack	131
139	Mealy, David	35
140	Weaver, W. Dean	36
141	Amsler Oil and Gas	30
142	Brooklyn Services	152
143	Rankin and Sons Excavating	31
144	Neiswonger Construction	36
145	Stehle, Thomas	31
146	Glenn, Charles R.	152
147	Glacial Sand and Gravel Company, Parker plant	122
148	Ancient Sun, Inc., Bowser pit	99
149	Ancient Sun, Inc., Foust pit	152
150	Whelpley, Fred, Excavation	43
151	Fitzsimmons, Glenn E.	31
152	Glenn Brothers Quarry	155, 225
153	Parker Sand and Gravel Company	117
154	Bradys Bend Corporation	95
155	Glacial Sand and Gravel Company, Tarrtown plant	117, 212
156	Glacial Sand and Gravel Company, Bridgeburg plant	117, 212
157	M & M Lime Company	16, 95
158	Davison Sand and Gravel Company, Tarrtown plant	117
159	Continental Clay Company	66, 217
160	Buffalo Limestone, Inc.	95, 149
161	Manor Minerals, Inc., Garretts Run quarry	95
162	Edwards, Robert J.	32
163	Allegheny Metals and Minerals, Inc.	117
164	Manor Minerals, Inc., Girty quarry	16, 96
165	South Bend Limestone Corporation	16, 96, 149, 216
166	White, Thomas J.	32
167	Griffith, Edward C., Quarrying, Inc.	155

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168	Coy, Robert A.	43
169	Coal Processing Services, Inc.	155
170	Davison Sand and Gravel Company, New Ken dredge	146
171	Davison Sand and Gravel Company, Torrance quarry	108, 207
172	Latrobe Construction Company	109
173	Davison Sand and Gravel Company, Whitney quarry	109, 207
174	Neiderhiser, Wilbert M.	62, 181
175	International Mill Service, Inc., Rostraver Township slag bank	65, 172, 210
176	Commercial Stone Company, Inc., Belle Vernon quarry	108
177	Sager, Jeffery L.	217
178	Fiore, Allan R., Inc.	130
179	Commercial Stone Company, Inc., Rich Hill quarry	101, 154
180	Commercial Stone Company, Inc., Springfield Pike mine	101
181	Davison Sand and Gravel Company, Connellsville quarry	101, 206
182	Silbaugh, Ralph G., Jr.	232
183	Marsolino Coolspring Quarry, Inc.	102, 206, 220
184	Wayne Gravel Products	136
185	Carlson, G.L., Inc.	93
186	Castelli, John Peter	29, 135, 234
187	Paulson, Donald F.	47
188	Troncone, Steven S.	230
189	North Star Aggregates, Inc.	28, 122, 222, 230
190	Fill-Source Associates	36
191	Dimmick, Gerald S.	31
192	IA Construction Corp., Bigler quarry	152
193	Fry, John and William	36
194	Whited, Gerald	35
195	Bender, Richard A.	34
196	Rose, Donald D.	35
197	Helsel, Elwood	34
198	Pheasant and Shearer	169
199	Waylite Corporation, Parkhill slag bank	169
200	B & Y Sand and Gravel, Inc.	76, 150, 229
201	New Enterprise Stone & Lime Co., Inc., Tyrone Forge quarry	70, 79, 111, 194
202	New Enterprise Stone & Lime Co., Inc., Canoe Creek quarry	97
203	Grannas Bros. Stone and Asphalt Co., Inc.	97
204	Snowberger, Earl H.	228
205	Heverly Enterprises	228
206	Ventre, D.C., and Sons, Inc.	229
207	New Enterprise Stone & Lime Co., Inc., Roaring Spring No. 3 quarry	149
208	New Enterprise Stone & Lime Co., Inc., Roaring Spring quarry	70, 110, 207
209	Long, Terry L.	34
210	Sproul Lime and Stone Company	17
211	New Enterprise Stone & Lime Co., Inc., Ogletown quarry	107, 162
212	Shaffer Brothers Coal Company, Inc.	56, 167
213	Commonwealth Stone, Inc.	161
214	New Enterprise Stone & Lime Co., Inc., Ishman quarry	162, 226
215	New Enterprise Stone & Lime Co., Inc., Central City quarry	161, 226

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217	New Enterprise Stone & Lime Co., Inc., Bakersville quarry	107, 161
218	Airesman, Floyd E. and Randy G.	160, 177, 235
219	Keystone Lime Company, Inc., Peck mine	21
220	Keystone Lime Company, Inc., Galley quarry	107, 161
221	Keystone Lime Company, Inc., Rodamer quarry	161, 226
222	Allegheny Mountain Flagstone Quarries	177
223	Keystone Lime Company, Inc., Eichorn quarry	20, 107
224	Fleegle, Robert L.	33
225	New Enterprise Stone & Lime Co., Inc., New Paris quarry	96
226	Stultz, Jeff, and Earl Miller	33
227	New Enterprise Stone & Lime Co., Inc., Ashcom quarry	70, 79, 96, 194
228	Shaffer, F. Paul	33
229	Blauvelt, Paul	177
230	Johnson Excavating	141
231	Majot, Joseph S.	32
232	Buckler Construction Company	140
233	Mill Hall Clay Products	218
234	Milestone Materials, Inc., Salona quarry	100
235	Eastern Industries, Inc., Western Div., Loganton quarry	100
236	Milestone Materials, Inc., Jacksonville quarry	99
237	Milestone Materials, Inc., Curtin Gap quarry	87
238	Con-Stone, Inc.	196
239	Bellefonte Lime Company, Gentzel quarry	17, 191, 195, 202
240	Con-Lime, Inc.	18, 81, 191, 196, 202
241	Bellefonte Lime Company, Nos. 1 and 2 mines	18, 191, 195, 202
242	Centre Lime and Stone Company, Inc.	99
243	Hawbaker, Glenn O., Inc.	99
244	Swank, Thomas B.	35
245	Milestone Materials, Inc., Oak Hall quarry	99
246	Fultz, Allen A.	47
247	Eastern Industries, Inc., Western Div., Naginey quarry	19, 71, 105, 220
248	Mauery and Laub	48
249	Wagner, Billy Joe	48
250	Peachy, Caleb J.	48
251	Kauffman, Jesse M.	48
252	Brannon, Russell	47
253	Eastern Industries, Inc., Western Div., Strodes Mill quarry	158, 225
254	Cavanaugh, Lloyd E.	47
255	Espigh, Glenn S.	47
256	New Enterprise Stone & Lime Co., Inc., Tyrone Forge quarry	70, 81, 112, 196
257	Eagle Excavation, Inc.	43
258	New Enterprise Stone & Lime Co., Inc., Union Furnace quarry	112, 208
259	Brown, Paul W.	166
260	Marks Brothers	43
261	New Enterprise Stone & Lime Co., Inc., McConnellstown quarry	103
262	US Silica Company	14, 187, 224

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263	Runk, Ralph W.	43
264	New Enterprise Stone & Lime Co., Inc., Orbisonia quarry	112
265	Richards, K.G.	42
266	Hill, Robert A.	42
267	Mellott, H.B., Estate, Inc., Big Cove Tannery quarry	87
268	Mellott, H.B., Estate, Inc., Smith quarry	155
269	Mellott, H.B., Estate, Inc., Charlton quarry	102
270	New Enterprise Stone & Lime Co., Inc., Dry Run quarry	18, 102
271	Snoke's Excavating and Paving, Inc., Vaughn's pit	42
272	Fayetteville Contractors, Inc., Hege quarry	39
273	Martin, David H., No. 2 pit	40
274	Crider, Lester G.	39
275	Young, M.	42
276	Walls Brothers Salvage	42
277	Valley Quarries, Inc., Mt. Cydonia No. 2 pits	131
278	Valley Quarries, Inc., Mt. Cydonia No. 1 quarry	154, 224
279	Valley Quarries, Inc., Chambersburg quarry	102
280	P & W Excavating Company	41
281	Fayetteville Contractors, Inc., Young No. 1 quarry	39
282	Grove North America	40
283	Martin, David H., No. 3 pit	41
284	McCulloh, Robert D.	41
285	Robinson, Carl L.	41
286	Fayetteville Contractors, Inc., Young No. 2 quarry	40
287	Mills, Allen L.	41
288	Kershner, Charles W., Jr., and Son	40
289	Haines Construction	40
290	Heysham Paving Company, Inc.	142, 223
291	Tri-Lakes Construction	142
292	Deats, Donald, and Son Excavating	93
293	Dean, Earl F., Inc.	141
294	Hamm, Michael L.	142, 223
295	Cross, Greg L.	163
296	Cross, Clifford, Jr.	163
297	Signor Brothers	27
298	Milestone Materials, Inc., Blossburg qu.	163
299	Logue, George E., Inc.	166
300	Vaughn, Wilbur C., Jr.	46
301	Milestone Materials, Inc., Loyalsock quarry	158
302	Milestone Materials, Inc., Montoursville	135
303	Milestone Materials, Inc., Lime Bluff quarry	105
304	Smith, Ray P.	204
305	Milestone Materials, Inc., Pine Creek qu.	105, 198
306	P Stone, Inc.	25, 114, 208
307	Willow Lake Excavation	58
308	Shreck, Robert S.	58
309	Day, Harold E., and Son	57
310	Gessner, Dale E.	57
311	Eastern Industries, Inc., Western Div., Lewisburg quarry	71, 108
312	Boop, Clair R.	57
313	Eastern Industries, Inc., Western Div., Winfield quarry	21, 71, 108, 221
314	Iddings Quarry, Inc.	108
315	Hoover, Leroy W.	58

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316	Knouse, Edgar W.	58
317	Kahley, Eugene F.	58
318	Richard's Excavating	56
319	Garrison, Virginia	56
320	Fetterolf, Rudolph I.	55
321	National Limestone Quarry, Inc., Paxtonville quarry	20, 107, 186
322	Bressler, Russell E.	55
323	Underhill, Karl Richard, Jr.	56
324	National Limestone Quarry, Inc., Mt. Pleasant Mills quarry	20, 106
325	Zartman, Gene D.	44
326	Fulkroad, Jay, and Sons, Inc.	103
327	Zeiders Excavating	44
328	McKnight, Carl M.	44
329	Long's Excavation, Inc.	44
330	Hosler, James H.	44
331	Gibbons, Robert L.	14, 216
332	Eastern Industries, Inc., Western Div., Liverpool quarry	159
333	Stydinger Brothers	54
334	Pennsy Supply, Inc., Newport quarry	159
335	Lesh, Harry B.	53
336	Stuber, George O.	54
337	Smith, Clyde E.	54
338	Thebes, Fred D., and Sons, Inc.	54
339	Dobbs, Larry W.	52
340	Metz, Denny	53
341	Mullen, Clyde R.	53
342	Kline, Herman C.	53
343	Dum, Benjamin	53
344	Pennsy Supply, Inc., Dromgold quarry	106
345	Armolt, Bobbi L.	52
346	Reisinger, Steven C.	54
347	Lebo, Dennis R.	38
348	Pennsy Supply, Inc., Silver Spring quarry	101
349	Minich, N.L., and Sons	38
350	Walter, John F., Excavating, Inc.	39
351	Hempt Brothers, Inc., Camp Hill quarry	100
352	Hempt Brothers, Inc., Locust Point quarry	100
353	Kough, E.E., Sons	38
354	Union Quarries, Inc., Bonny Brook quarry	111
355	Swartz, Lewis D.	39
356	Shuman, Jay E.	38
357	Hamilton, Harold L., Sr.	37
358	Penn Products Corporation, Reading Banks pit	218
359	Penn Products Corporation, White Rock quarry	153
360	Snoke's Excavating and Paving, Inc., Martin's pit	38
361	Pennsy Supply, Inc., Mount Holly Springs quarry	153
362	Valley Quarries, Inc., Shippensburg quarry	18, 101
363	NEP Sand and Gravel, Inc.	77, 153, 224
364	Hempt Brothers, Inc., Toland mine	153
365	Glen-Gery Corporation, Alwine-Hamilton No. 1 pit	65
366	Glen-Gery Corporation, Alwine-Mt. Pleasant pit	65
367	Glen-Gery Corporation, Oxford pit	66
368	Tarmac America, Hanover quarry	22, 110, 192, 194, 198, 200, 207
369	Clapsaddle, Wilson, Sand Quarry	23, 116, 228
370	Valley Quarries, Inc., Gettysburg quarry	81
371	Valley Quarries, Inc., Fairfield quarry	95
372	ISP Minerals, Inc.	27, 116, 212
373	Dalrymple Gravel and Contracting Co., Inc.	118
374	Simonds, Tom, and Son Excavating	119, 229
375	Root, Charles T.	119, 221
376	Hill, Carl, Construction, Inc.	119
377	Forbes, Ronald L.	27
378	Storch, Robert L.	120
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GLOSSARY

aggregate Sand, gravel, crushed rock, or other materials used in construction, usually bonded in cement or asphalt to add durability and reduce bonding-agent costs.

agricultural minerals Pulverized limestone or dolomite, lime, peat and other industrial minerals having applications such as soil conditioning.

alluvium Loose sediment deposited by running water. Often found on the floodplains of streams. The products of alluvium range from fertile topsoil to coarse aggregate.

argillite A fine-grained, compact sedimentary rock that is similar to shale but lacks the obvious layering of most shale. Up to half the content of argillite can be low-grade metamorphic minerals. Argillite is found in the Gettysburg-Newark Lowland Section of southeastern Pennsylvania.

ashlar Squared stones for the facing of structures such as walls of rubble or brick.

bank run Material that is sold as-excavated, having undergone no processing or sorting by size.

bluestone A dense, hard, bluish-gray sandstone that is easily split into slabs and marketed primarily as flagstone. Small bluestone quarries are abundant in northeastern Pennsylvania.

borrow and general fill Material, usually bank-run, that is excavated (or "borrowed") from one location to be used as fill in another location.

calcsilicate A metamorphic rock containing calcite or dolomite and calcium-bearing silicate minerals, formed by the alteration of impure limestone or dolomite. Found in the Piedmont of southeastern Pennsylvania.

chert A hard, dense rock consisting of silica. Chert can be broken to produce a sharp edge. Dark-colored chert is also called flint. In Pennsylvania, chert is mined in Juniata County. The presence of chert in aggregate that is to be used in the manufacture of concrete is considered to be deleterious.

coal-mine rock dust Pulverized limestone or dolomite that is sprayed on the interior of underground coal mines to help reduce the risk of fire.

colluvium Loose sediment deposited on or at the base of a steep slope as a result of erosion.

crusher run Rock that is sold as it emerges from the crusher, having no additional processing or sorting by size.

dead-burned dolomite Granular refractory material for kiln and furnace linings used in the steel industry and other industries. It is prepared by firing high-purity dolomite to a temperature greater than 1,700°C.

diabase A very hard, dense, dark-colored intrusive igneous rock. It is common in the Gettysburg-Newark Lowland Section of southeastern Pennsylvania and has a variety of specialized uses, such as railroad ballast and dimension stone.

dimension stone Building stone that is cut into blocks or slabs to specification. Sandstone (including "bluestone"), slate, and diabase are among the sources of dimension stone in Pennsylvania.

dolomite A sedimentary rock consisting largely of calcium magnesium carbonate and formed from ancient seafloor sediments. Most deposits in Pennsylvania are in the southeastern quarter of the state.

esker A ridge of sand and gravel deposited by a stream that flowed in a tunnel under a melting glacier. Eskers that formed thousands of years ago, as the glaciers of the Pleistocene Epoch were retreating, are found in northwestern Pennsylvania.

felsic A term that refers to light-colored igneous and some metamorphic rocks. The opposite of mafic.

fettling stone Material used in the steel industry to protect the bottom of open-hearth furnaces.

fieldstone Roughly trimmed or untrimmed stone used for decorative effect in construction.

fillers Various inert materials, including clay and limestone, that are used as extenders, diluents, and carriers in foods and other manufactured products.

fireclay A clay that is rich in aluminum silicate minerals and is durable at high temperatures. It is useful for the manufacture of refractory products, such as bricks for fireplace hearths.

fissile A term applied to certain kinds of rock, such as shale, that can be easily split along closely spaced planes.

flagstone A hard rock, such as sandstone, that is easily split along planes to make slabs for walkways.

floodplain The area of relatively flat land adjacent to a river that is submerged only at times of high water.

fluxstone Rock, such as limestone or dolomite, that can be used to promote the fusion of and removal of impurities from metals in industrial processes.

friable A term applied to rock that is easily crumbled or broken.

gabion stone Stone used to fill a wire basket-like structure constructed to form a seawall, groin, or breakwater in a harbor or other coastal or riverbank setting. It is also used to reinforce unstable highway cut slopes.

gneiss A banded metamorphic rock, usually consisting of layers of light and dark minerals. It is found in the Piedmont of southeastern Pennsylvania and in a hilly region extending from Reading into New Jersey known as the Reading Prong.

guillotine split Hydraulically split dimension stone having roughly planar surfaces and a natural, rather than a smooth or polished, appearance.

gunning materials Refractory materials that are applied to surfaces by means of airplacement guns for fireproofing and sealing.

hornfels A fine-grained metamorphic rock, occasionally porcelain-like, formed by the thermal alteration of shale in contact with igneous intrusions. It is associated with the diabase intrusions of southeastern Pennsylvania.

igneous rock Rock that formed from hot, molten material. Igneous rocks may be either extrusive, formed from volcanoes or lava flows, or intrusive, formed from magma that solidified underground. In Pennsylvania, igneous rocks are found in the southeast, particularly in the Gettysburg-Newark Lowland Section. Most igneous rocks found in Pennsylvania are intrusive.

kame A low hill or mound of sand and gravel deposited at the edge of a melting glacier by a stream of water flowing off the glacier. Kames are found in the areas of northwestern and northeastern Pennsylvania that were covered by glaciers thousands of years ago during the Pleistocene Epoch.

lime Calcium oxide (quicklime) and, less formally, calcium hydroxide (hydrated lime). A product made by heating limestone to high temperature. Used in chemical, industrial, and agricultural applications. The term "lime" is also commonly applied to pulverized limestone and dolomite that has not been heated. The term "dolime" is applied to a mixture of calcium and magnesium oxides obtained by heating dolomite to high temperature.

limestone A sedimentary rock composed largely of calcium carbonate and formed from ancient seafloor sediments. Extensive deposits of high quality are found in several areas of Pennsylvania.

mafic A term that refers to dark-colored igneous and metamorphic rocks. The opposite of felsic.

metabasalt A hard, dark, metamorphic rock formed by the alteration of a mafic igneous rock. In Pennsylvania, dark green metabasalt is mined in Adams County for roofing granules and aggregate.

metamorphic rock Rock that has been significantly altered, usually through exposure to high temperature, high pressure, or both. Metamorphic rocks underlie all of Pennsylvania at great depth and are found at the surface in much of the Piedmont of southeastern Pennsylvania.

mineral A naturally forming inorganic substance having a definite chemical composition and crystal form. This differs from the term **mineral resource**, the subject of this directory, which refers to any economically valuable natural substance that can be recovered from the Earth.

mineral food An inert material added to animal feeds to provide bulk and improve ease of handling.

moraine A mound or ridge of mixed sediment of all sizes deposited directly by glacial ice. Moraines and other glacial features that formed thousands of years ago during the Pleistocene Epoch are found in northeastern and northwestern Pennsylvania.

outwash Sand and gravel carried away from a melting glacier by water and deposited downstream from the glacier. See "terrace."

quicklime See "lime."

railroad ballast Coarse aggregate used to create trackbeds along railroad rights of way. The aggregate serves to stabilize ties and drain water away from them.

refractories Materials that are able to withstand high temperatures without degrading.

residuum Unconsolidated material remaining after rock is weathered.

rip-rap Large irregular blocks of stone that are piled to protect shoreline areas from erosion.

sand-mound sand Sand that is used in the filtration of effluent in septic systems. Normally used in areas having low natural permeability.

sandstone A sedimentary rock composed of grains of sand that have been cemented together. It is abundant in many areas of Pennsylvania.

schist A metamorphic rock that is prominently layered and is easily split into thin flakes along the layer boundaries. It is found in the Piedmont of southeastern Pennsylvania and commonly contains abundant minerals that form thin sheets, such as mica and chlorite.

sedimentary rock Rock formed by the accumulation of sediment such as clay, silt, sand, or gravel that is cemented by natural processes. Also rock formed by the natural precipitation and cementation of substances such as calcium carbonate from seawater.

serpentinite A green rock consisting mostly of minerals that belong to the serpentine group. It is mined in southern Lancaster County for aggregate, but was once mined for dimension stone in Chester County and along the border of York County, Pa., and Harford County, Md.

shale A fine-grained sedimentary rock formed by the consolidation of clay, silt, or mud. It commonly can be split into thin layers that correspond to the original layers of sediment that make up the rock. It is common in many areas of Pennsylvania. The term "shale" is also used in a very loose sense as a synonym for "borrow and general fill."

slate A compact, fine-grained metamorphic rock formed by the alteration of shale that has been subjected to heat and pressure. Slate commonly can be split along planes that are independent of the original bedding of the shale. Slate is mined for roofing materials and dimension stone in Lehigh and Northampton Counties.

SO_2 absorption The property of some limestone and dolomite that allows it to be used for the removal of sulfur dioxide (SO_2) from gases that are emitted when coal is burned.

SRL Skid Resistance Level. A measure used by the Pennsylvania Department of Transportation to judge the quality of aggregate used in highway construction as it relates to vehicle braking distance.

terrace As used in this book, a relatively flat break in a slope above a river that marks a former higher level of the river. Outwash from melting glaciers is commonly found on terraces above the present rivers.

turkey call A device fabricated from slate and used to attract undomesticated *Meleagris gallopavo.*

underclay A layer of fine-grained rock or clay that underlies coal and may represent the soil in which the plants that make up the coal grew. It is mined in the coal-producing regions of western Pennsylvania.

whiting Pulverized limestone that is used to improve the whiteness, brightness, and durability of products such as certain grades of paper and plastic.

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